

Beat

232 | 05-2025

12 GB

SOFTWARE
DOWNLOAD

FULL VERSION:
**DAN DEAN ESSENTIAL
 BASS COLLECTION***
 YOUR TRACK DESERVES
 THESE BASSES



► **DS AUDIO
 THORN SOLO**
 GRANDE BRUTAL, WITH HEART!

► **ZAMPLER ANA LOGUE**
 77 PATCHES FOR FUTURE BASS,
 HOUSE AND D&B

TO THE MAX:

6 GB MIDI, Stems & Drums

for Psytrance, Pop & Hip-Hop

BITWIG:
 GET A GREAT
 VOX & DRUMS MIX

FROM BEGINNER TO EXPERT

AUDIO
INTERFACES

MEGA-TEST: 42 MODELS COMPARED
 YOUR MARKET CHECK ON 18 PAGES



TEST: BEHRINGER WAVE
 THE PPG SOUND – TOO CLOSE TO THE ORIGINAL?

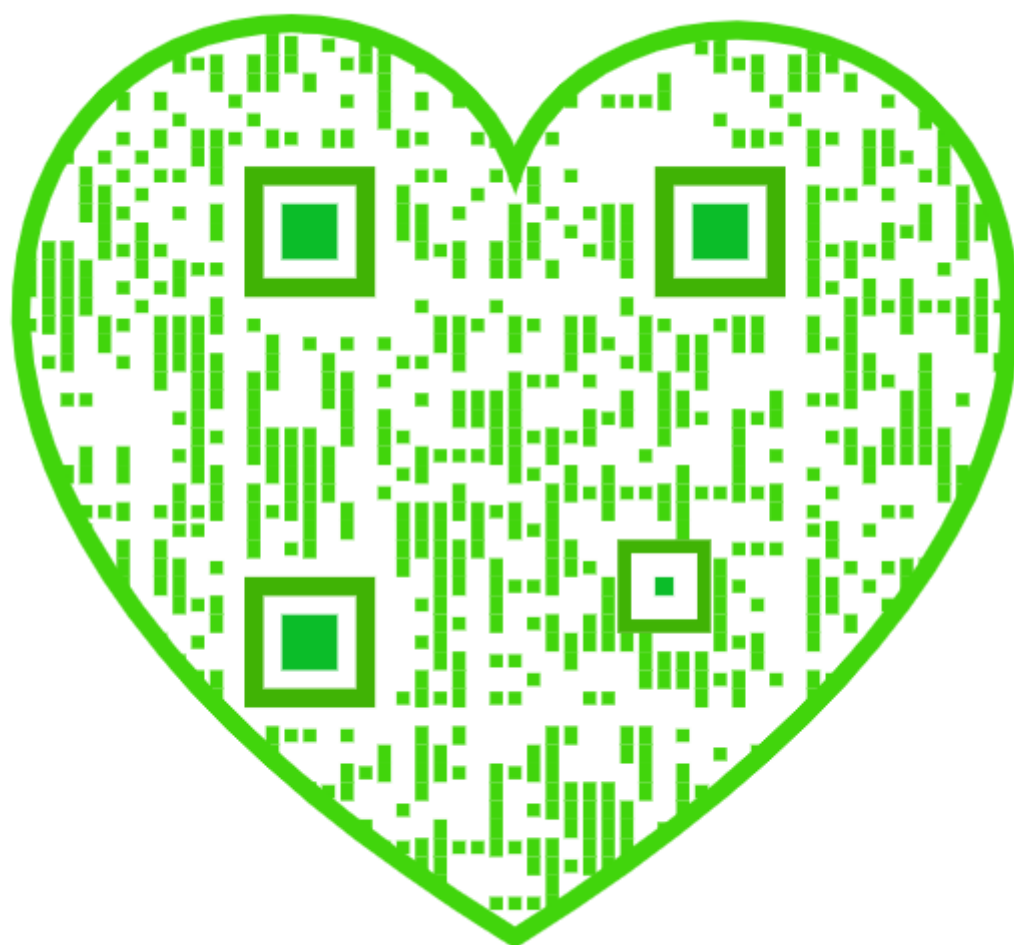
MONITOR TOO EXPENSIVE? THE BEST
 ALTERNATIVES TO THE STUDIO DISPLAY



TWISTFM
 CHIPTUNE- &
 LO-FI-SYNTH

INTERVIEW
 IN TALK WITH
 SVEN VÄTH







**32-bit
FLOAT**

DR-07XP • DR-05XP



Record anything, anywhere

now with professional 32-bit float resolution*

32-bit float is all the rage. Why is that? Because it makes your recordings sound better than ever before. And because it's unlikely you'll ever miss a recording again. With the latest version of our most successful handheld recorders, you can now benefit from this technology. The **DR-07XP** has adjustable condenser microphones for a variety of applications, while the **DR-05XP** has fixed microphones, making it universally applicable and even easier to use. Of course, both have a USB audio interface mode and much, much more.

Find out all the details on our website or from your specialist dealer.

* Selectable WAV with 44.1/48/96 kHz, 16/24-bit or 32-bit Floating Point | MP3 with 32–320 kbit/s at 44.1/48 kHz

tascam.eu/r/Mqk0



GET STARTED

SOFTWARE HIGHLIGHTS



1 plug-in, 6 iconic basses

Dan Dean Essential Bass Collection

Fender Precision and Fender Jazz Bass, Washburn Fretless and Alembic Spoiler - these instruments are not only legendary, but represent distinctive sounds that have shaped countless hits. Our highlight from Tracktion brings six of these exquisite instruments from Dan Dean's collection directly into your studio. Whether it's Rock, Pop, Soul, Funk, or Disco - with this plug-in, you will find the perfect bass sound within seconds!

Download: [see page 9](#) | Info: tracktion.com

win | mac



Grande brute, but with heart!

DS Audio Thorn Solo

"There's no other way to put it: Thorn is a blast! Clattering sequences, powerful basses, sparkling arpeggios, gentle pads ... the sound generation is almost inexhaustible, the modulations invite you to tinker and the FX are far more than just an accessory." This was the Beat editorial team's verdict on "Thorn". The solo version is hardly inferior and provides pure inspiration. New, great sounds of all kinds are created in no time at all, in short: sounds like serum on steroids.

Download: [see page 9](#) | Info: dmitryshes.com

win | mac



All serial numbers safely accessible: The Beat Serial Center

To ensure that none of your serial numbers are lost in future (e.g. in the event of a reinstallation, Outlook crash or disk crash), you can now manage them conveniently online. The advantages are obvious: the editorial team can send you specific software updates, you can access all serials at any time and from anywhere and everything is managed and stored in a central location. The Serial Center thus becomes your personal password archive on the web.

www.serialcenter.de



**77 Gritty patches
for Future Bass, House, and D&B**

ANA Logue for Zampler & MPC's

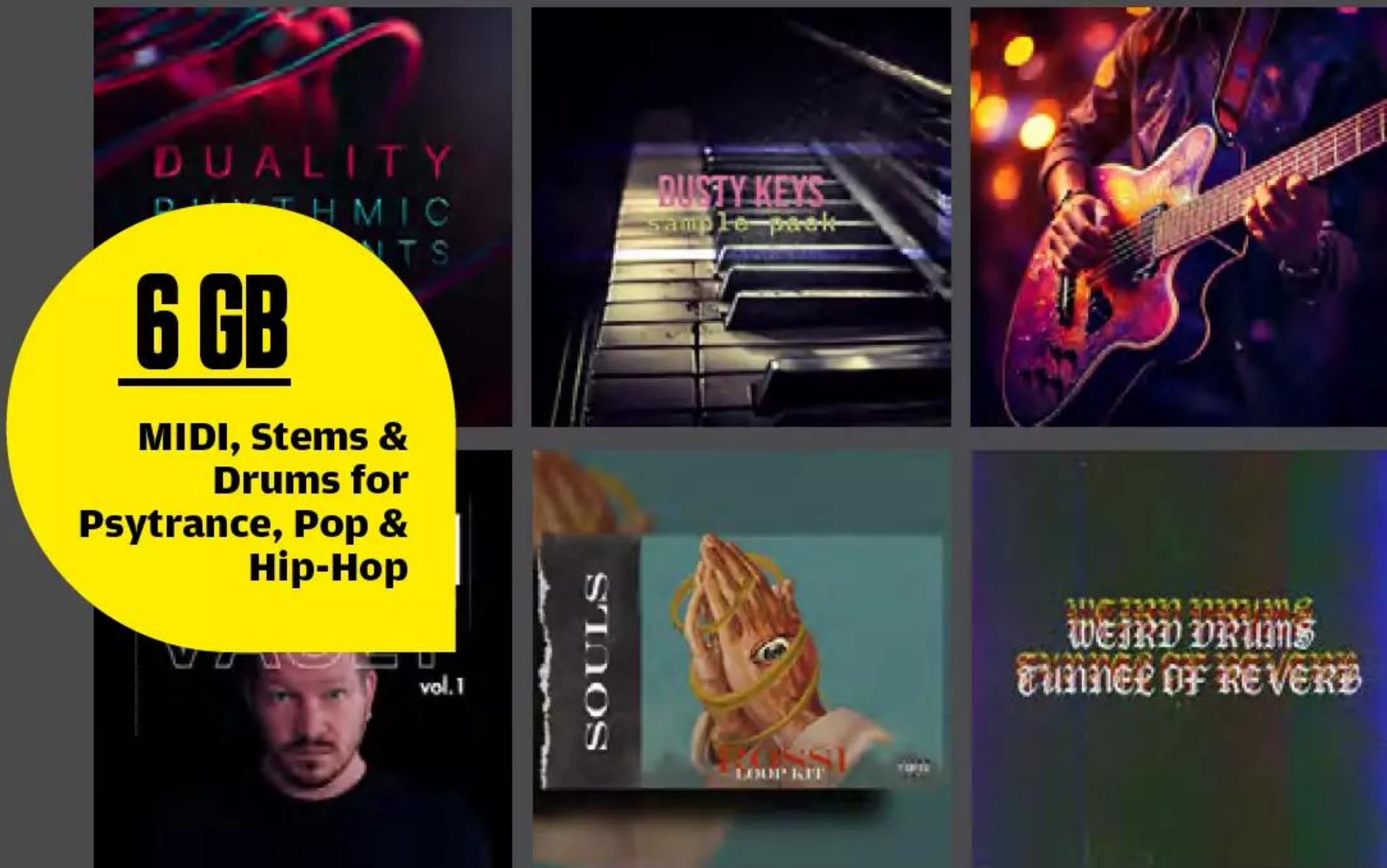
From Moog Matriarch to Sub Phatty, from Prophet to Novation Peak - we dug out everything from our studios that has analog circuitry and can produce sounds from dreamily smooth to shaking and rumbling. Resulting in 77 gritty patches, in which you're guaranteed to find a bass and lead for every track! A total no-brainer for fans of analog synths. Our recommended patch: Patch 15 "In Your Phase".

Download: [see page 9](#) | More packs: zampersounds.com

win | mac

Beat #232 – Exclusive software

More than 12 GB of valuable plug-ins and samples to download



We have the perfect bass for your studio with the full version Dan Dean Essential Bass Collection. Discover six genre-spanning iconic basses. In addition, our Thorn Solo from DS Audio deserves full attention once again, because the synth is bursting with crisp sounds!

Smacking basses and massive leads for future house, house and drum & bass are at the heart of our ANA Logue expansion pack for the Zampler and for the Akais MPC series. 77 creaky patches from the Moog Matriarch and Sub Phatty, among others, are waiting for you.

We’ve stashed 6 GB in our sample treasure chest this month. Of particular note is the Synth Vault collection by Matthew S. This techno and electro package contains deep basslines, atmospheric textures and hypnotic sequences, all developed with a special hardware setup. We’ve also included rhythmic fragments, dusty keyboard sounds and much more.

Contents compiled by the Beat editorial team



Full Bucket Oxid

Based on the synthesizer model ARP Omni-2 from the 70s, Full Bucket has developed Oxid. The 64-voice sound generator consists of three sections: string, synthesizer and bass. Create dreamlike soundscapes and pads and use the integrated envelope and low-pass filter. Numerous presets are available.

Download: [see page 9](#) | Info: fullbucket.de win | mac



BaconPaul Six Sines

SixSines is an FM synthesizer with six operators, DAHDSR envelopes and a modulation matrix that can produce bell-like, popping and even cutting sounds. The Yamaha TX81Z synthesizer offers waveforms in addition to basic waveforms. The 64-voice open source sound generator also supports MP.

Download: [see page 9](#) | Info: github.com/baconpaul/six-sines win | mac | linux

Exclusive download: The Beat Studio

2,24 GB

ANA Logue for Zampler & Akai MPCs

HURRY UP!

Only 400 licenses left.

Apsonic Speedrum BE

Powerful drum sampler with 16 MPC-style pads

Acon Dynamics BE

All-rounder with Compressor, Expander and Gate

Thorn Solo

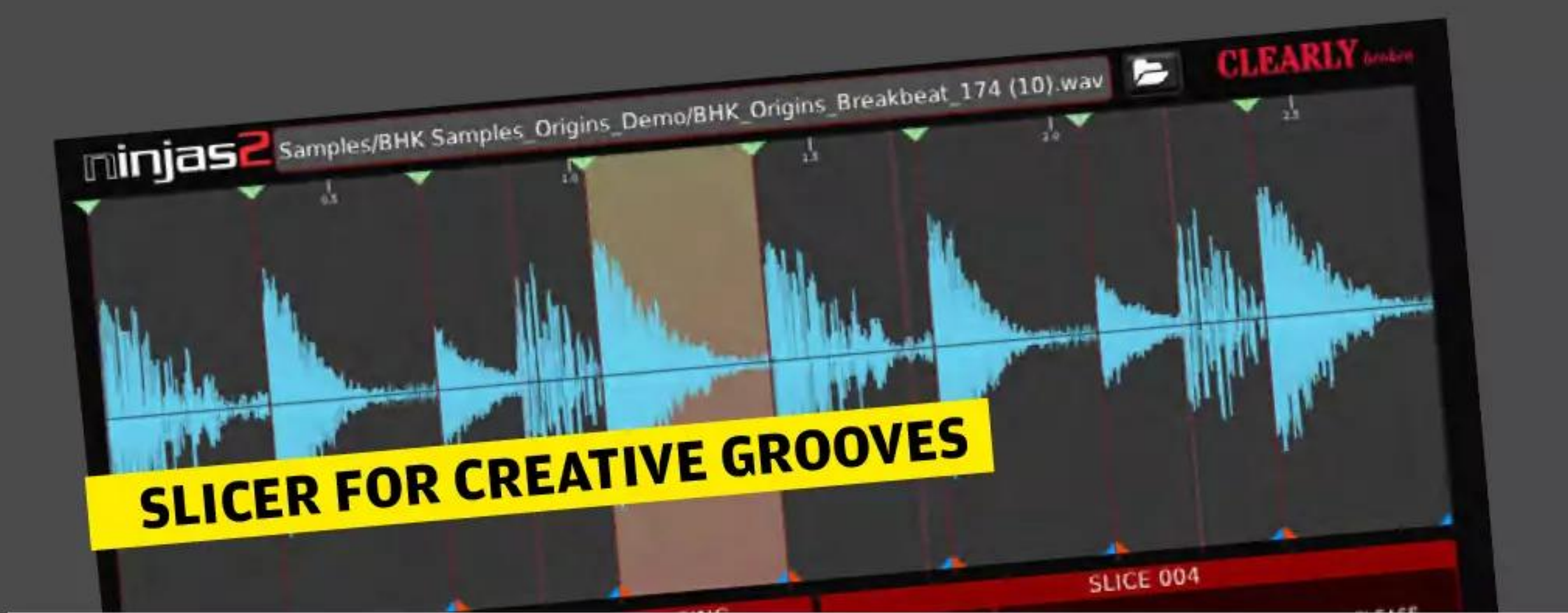
Brute monosynth with all the finesse

Zampler//RX

REX and SFZ player with mod Matrix & Parameter Sequencer

Halls Of Fame 3 Beat

Luxury convolution reverb with Lexicon, Bricasti & EMT



Ardour Ninjas2

Easily cut your loops into individual slices and rebuild them. With the Ninjas2 slicer, you'll quickly create new, invigorating grooves or cool vocal chops. Up to 128 slices can be created.

Download: see page 9 | Info: discourse.ardour.org

win | mac | linux



Tascam Audio File Manager

The Tascam Audio File Manager helps you manage your audio files, whether you want to rename several files at once, check waveforms or sort recordings.

Download: see page 9 | Info: tascam.eu

win | mac



NUSofting Glitch Pad

Glitch Pad is a waveshaping synth with 23 presets that is ideal for ambient, experimental soundtracks and game music. The oscillator can even be morphed and creates exciting retro sequences with the arpeggiator.

Download: see page 9 | Info: nusofting.net

win | mac



OMG Instruments BlueARP

Looking for inspiring melodies and rhythms? The BlueARP MIDI plug-in creates catchy basslines, gated pads and banging sequences in no time at all.

Download: see page 9 | Info: omg-instruments.com

win | mac

828 MOTU



HIGH AUDIO QUALITY

Improved ESS Sabre32™ Ultra converters with a dynamic range of 125 dB.



HIGH SPEED

Round-trip latency of ~2 ms over USB at 96 kHz with a 32-sample buffer for Mac & PC.



CONNECTIVITY

60 simultaneously available audio channels. 28 inputs, 32 outputs.

Table of contents

AUDIO-INTERFACES

Whether recording melodies or vocals, recording beats, sampling, integrating a modular system into the DAW or performing live - everything only runs smoothly with the right audio or CV interfaces. But which ones suit your workflow? And how can iOS apps be integrated? In the big market check, we clarify the most important questions with the manufacturers on 18 pages, recommend setups for beginners to advanced users, present models for the studio and on the road and give specific tips for optimising your setup. Plus: Extra overview of pitfalls when setting up interfaces. **From page 18**

Standards

- 003 **Beat-Heft-Software #232**
Make your studio more valuable! This month there's more than 12 GB of plug-ins, sounds and samples for your tracks.
- 006 **Contents**
- 008 **Navigator: Best of Beat #232**
- 012 **BEHIND THE BEAT Podcast**
Episode #46 with Ziggy Zeitgeist
- 016 **Editorial: The BEAT team introduces itself**
- 080 **Music treasures of the month**
- 081 **What's up? Your event planner for 2025**
- 082 **Imprint & preview**
Beat 06|2025 will be out on 02.05.2025



Photo: Daniel Woeller

Music & technology

- 010 **Magazine - Facts, interviews, products**
- 014 **15 years EMS - Electronic Music School**
Producing, learning and marketing
- 042 **BEAT Community: Show us your studio**
This month with: Tobias Philippi
- 040 **Portrait: DJ Koze**
DJ Koze breaks boundaries - his album „Music Can Hear Us“ combines dance, world music, avant-garde and indie pop. With guests such as Damon Albarn, Soap&Skin and Markus Acher, he surprises not only musically. In the interview he reveals more.
- 036 **Digital Culture: Social Media**
Facebook is undergoing a process of dissolution - and the world of social media is undergoing its biggest upheaval yet. What comes after the end of the meta-monopoly?

Portrait: Sven V  th

For Sven V  th, DJing was never just a job. It was his life and he enjoyed it to the full. In a captivating illustrated book, he now reviews the highlights of his life. They document not only his own memories and those of his countless colleagues - but also the explosive growth of electronic dance music as a whole. **Page 38**

Test: TWISTfm

FM synth with Soundblaster chips, analogue multimode filter and touch controller. **Page 66**



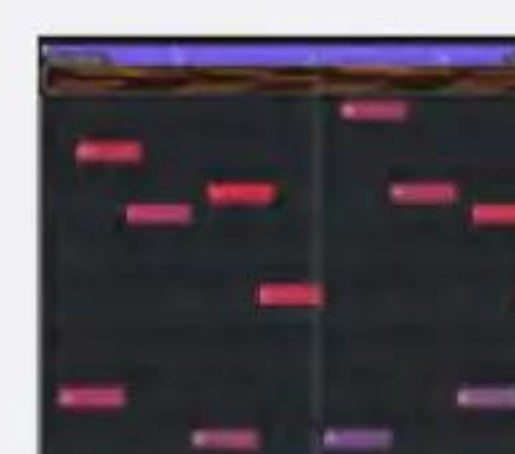
Top workshops



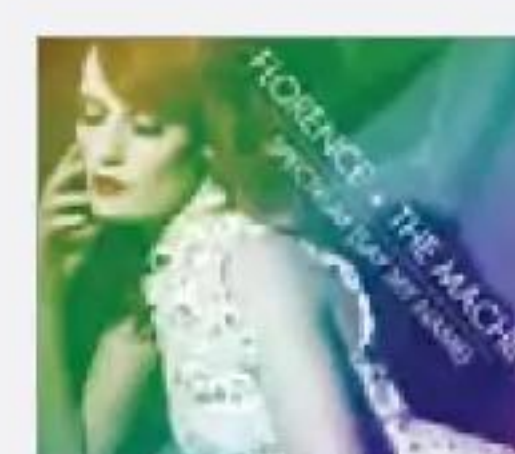
Gratis: Tracktion Dan Dean Essential Bass Collection
One plug-in, 6 iconic basses
Page 44



Zampler & MPC Expansion: ANA Logue
Produce a powerful house drop in the style of Alok & Tiesto! **Page 60**



Power Producer: Cubase
Transforming melodies into atmospheres. **Page 48**



Dope Tracks - Top Ten Sounds Deconstructed
This time with Florence + The Machine and Billie Eilish. **Page 58**



@beat.magazin



@beatmagazin



@beatmagazin



@beatmagazine_ofc



Magazine downloads

Find the link on page 9



Latest news on

www.beat.de



Test: Behringer Wave

Behringer brings back the PPG Wave series - more compact and modern, but with almost identical operation. A missed opportunity? **Page 68**



WorkBeat

- 044 **Focus:** Dan Dean Essential Bass Collection
- 046 **Power Producer:** FL Studio
- 047 **Power Producer:** Apple Logic X
- 048 **Power Producer:** Cubase
- 049 **Power Producer:** Ableton Live
- 050 **Power Producer:** Bitwig
- 051 **Power Producer:** Reason
- 052 **Song Starter:** Dream Trance
- 058 **Dope Tracks:** Top 10 Sounds Deconstructed
- 060 **Zampler Constructor:** ANA Logue



SoftBeat

- 054 **Test:** Expressive E Imagine
- 055 **Test:** Wavea Flite

HardBeat

- 062 **Desktop audio**
- 066 **Test:** Twisted Electronics TWISTfm
- 068 **Test:** Behringer Wave
- 074 **The best alternatives to the studio display**

On Stage

- 071 **Power Producer:** Push-DJing
- 072 **DJ news**

Navigator: Best of Beat #232



The common thread: Beat magazine 04/2025

For many years, Beat has been inspiring its readers not only with practical and musical topics, but above all with the tight integration of editorial content. From the very beginning, Beat has been about creating, about the structured building of ideas and the common thread – in the magazine as well as in the tracks. This navigator shows you the highlights of this issue and allows you to see the big picture.



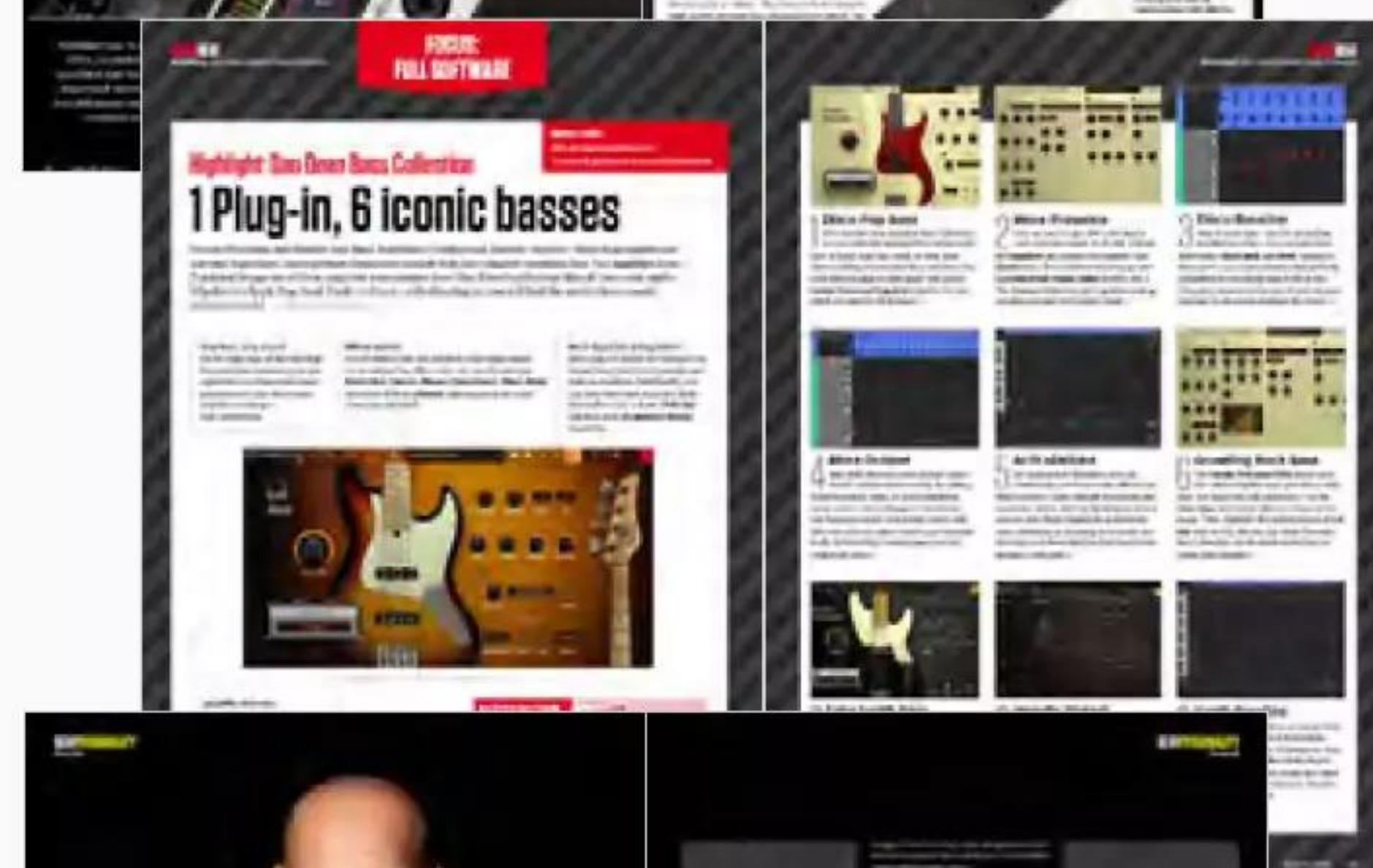
Test: Behringer Wave

Behringer Wave is a replica of the first wavetable synthesizers, the PPG Wave series. The housing, kept in a distinctive blue, is somewhat more compact and the connections are somewhat more modern, but both sound generation and operation are almost identical to the original – which is not only an advantage. **Page 68**



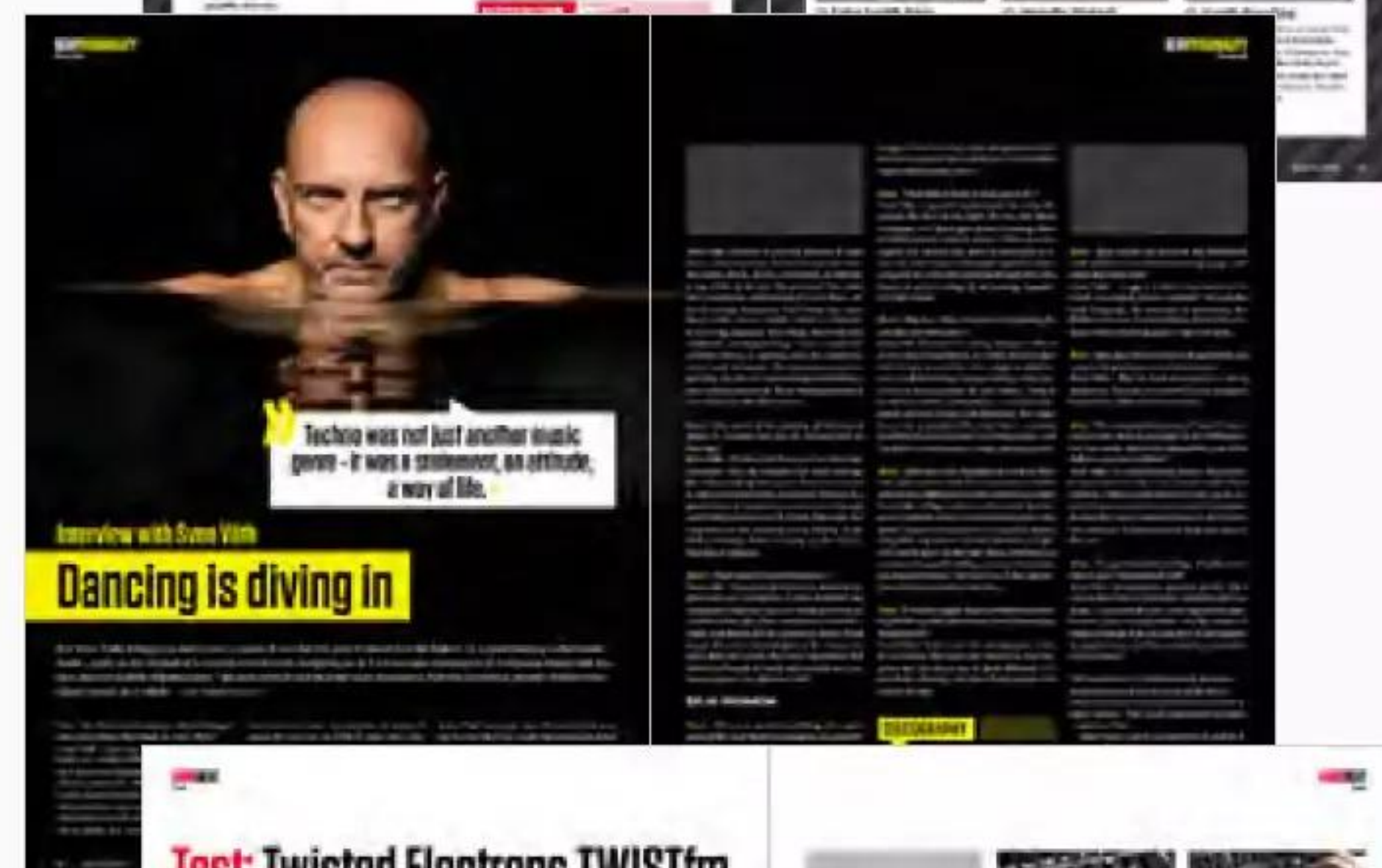
Masterclass: Audio-Interfaces

Whether you're recording melodies or vocals, playing or sampling beats, integrating a modular system into your DAW, or performing live – everything will run smoothly only with the right audio or CV interfaces. But which ones best suit your workflow? On the following 18 pages, we clarify the most important questions directly with the manufacturers in the big market check, recommend setups for beginners and advanced users, present models for the studio and on the go, and also offer concrete tips on how to effectively optimize and expand your setup. Plus, we'll provide an overview of pitfalls when setting up interfaces. **From page 18**



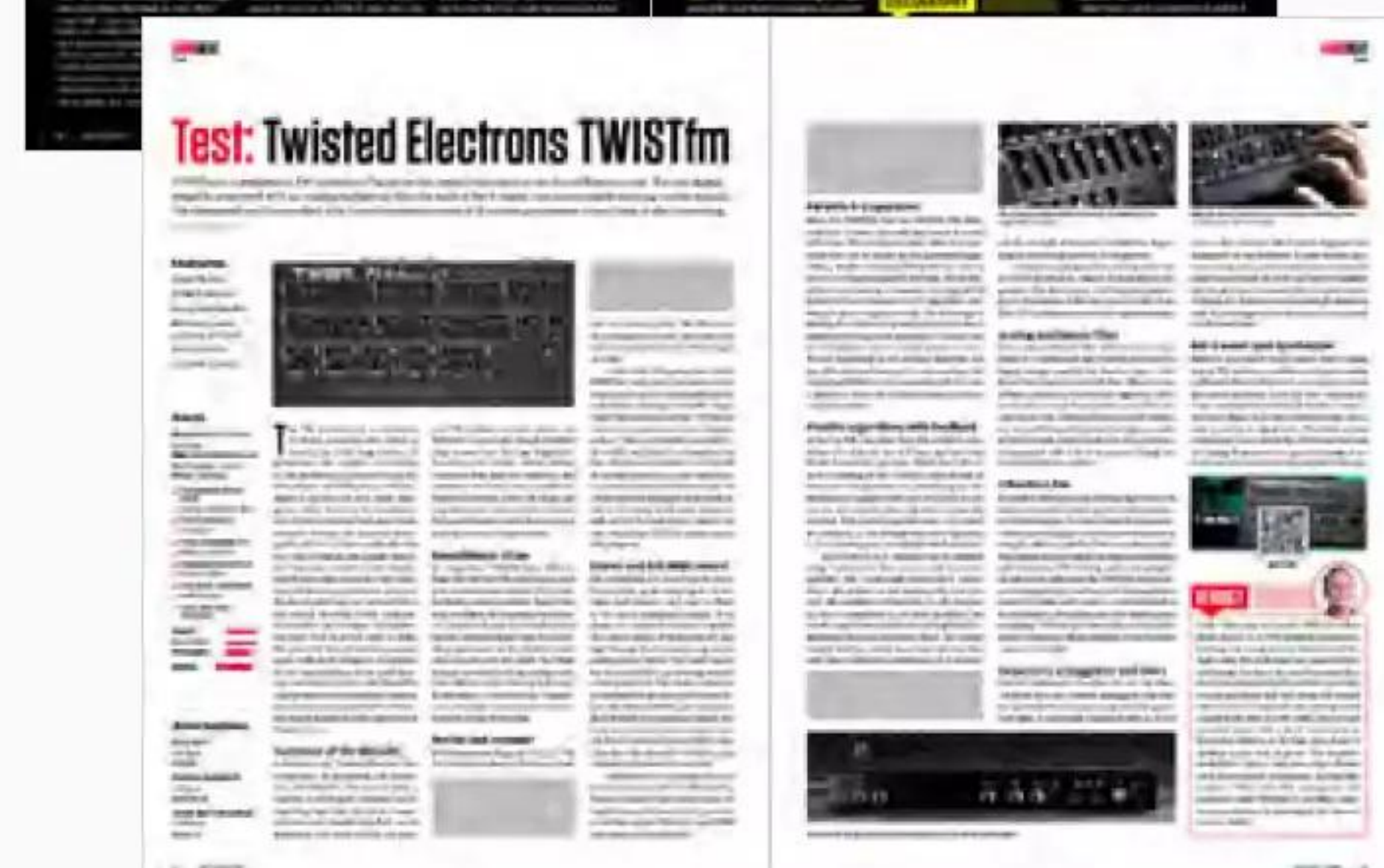
Free: Tracktion Dan Dean Essential Bass Collection

Fender Precision and Fender Jazz Bass, Washburn Fretless and Alembic Spoiler - these instruments are not only legendary, but represent distinctive sounds that have shaped countless hits. Our highlight from Tracktion brings six of these exquisite instruments from Dan Dean's collection directly into your studio. Whether it's Rock, Pop, Soul, Funk, or Disco - with this plug-in, you will find the perfect bass sound within seconds! **Page 44**



Portrait: Sven Väth

For Sven Väth, DJing was never just a career. It was his life and he lived it to the fullest. In a spellbinding coffee table book – aptly in the format of a 12inch vinyl record, weighing in at 3.5 kilos and clocking in at 350 pages filled with stories, and incredible photography – he now revisits not just his own memories, but the explosive growth of electronic dance music as a whole. **Page 38**



Test: Twisted Electronics TWISTfm

TWISTfm is a polyphonic FM synthesizer based on the sound chips used in the Sound Blaster cards. The raw digital sound is processed with an analog multimode filter for each of the 8 voices, two layers enable exciting combo sounds. The integrated touch controller, which enables intuitive control of various parameters in real time, is also interesting. **Page 66**

Beat

BEAT SOFTWARE
FOR DOWNLOAD

AVAILABLE FOR SUBSCRIBERS AT

www.beat.de/downloads

Facts | Opinions | News | Products

Magazine

by Carl-Philipp Schmeller

Authentic grand piano sound from IK Multimedia

With the Grand Piano Y7, IK Multimedia has recreated the legendary Yamaha C7 grand piano from the 1980s, which should be of particular interest to composers and sound designers. The main aim is precise and authentic sound reproduction, so that numerous dramatic, cinematic and suggestive sounds can be found in the plug-in. The recordings were made at the legendary Fonoprint Studios in Bologna, Italy, where artists such as Bocelli and Morricone have worked. Various microphone techniques were used. The integrated Round Robin technology makes the playing feel even more authentic. A total of 25 presets are included, which can be used for both studio and live recordings. Not forgetting that Pianoverse users have access to twelve effects and 33 room environments (from garage to cathedral).

The Grand Piano Y7, which requires over 27 GB, is now available for 99 Euros plus VAT. For owners of the Pianoverse MAX bundle, the virtual grand piano is included free of charge. The plug-in supports the formats VST 2, VST 3, AU and AAX.

ikmultimedia.com



More info

Channelstrip with tube saturation

Together with Vertigo, Plugin-Alliance has recreated the sound of their high-quality outboard hardware in the new Vertigo VSS-2 channel strip. The aim is to give the sound more warmth, transparency and punch. In addition to the input and output section, it consists of a filter, VCA compressor, 4-band equalizer and tube saturation. The discrete Gyrator circuits, which were taken from the VSE-4 model, stand out due to the smoothness of the EQ sound control. The quality factor of the EQ is variable. The filter of the VSS-2 originates from the VSE-2 EQ which eliminates unwanted frequencies. Here, the slope can be switched from 6 dB/octave to 12 dB/octave. The warmth and harmonic saturation is provided by the tube-controlled tube saturator, the intensity of which you control with the mix control. This section also offers Drive, Level and Shape controls. The VCA compressor controls the dynamics and gloss and is equipped with a sidechain function.

The Vertigo VSS-2, suitable for mixing and mastering, is now available at a price of 129 US Dollars. The plug-in supports VST, AU and AAX formats.

plugin-alliance.com



More info

Shape and create vocals flexibly with Dreamtonics

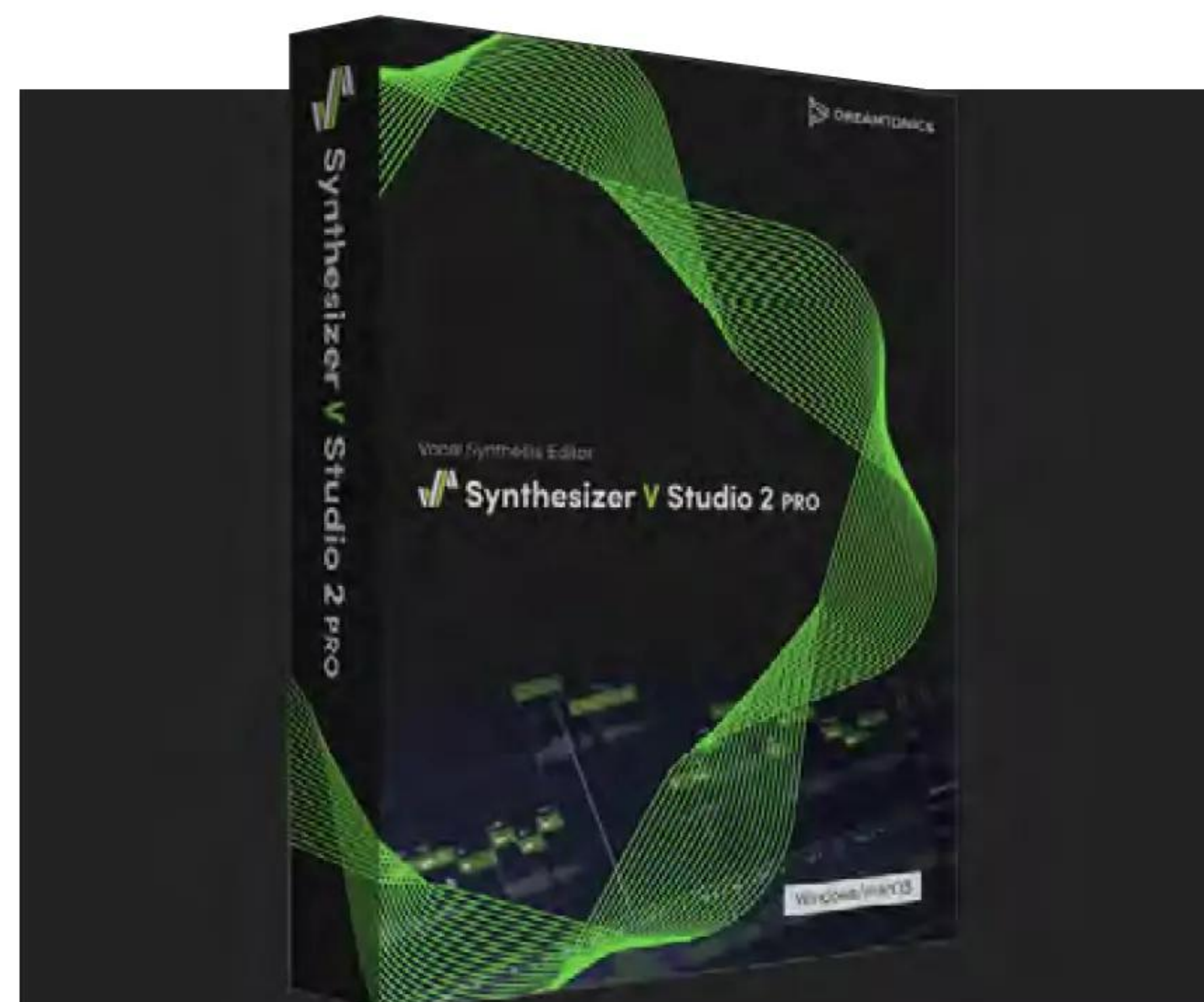
Synthesizer V Studio 2 Pro is the latest generation for vocal production using artificial intelligence. Thanks to AI, synthesis makes it possible to sketch melodies, write lyrics and create and shape vocal tracks individually. This is possible thanks to the improved algorithm design and enhanced multi-threading support. Also new is the improved voice quality and dynamics - the new vocal models ensure a more precise reproduction of human voices with finer details. The rendering speed is now up to 300% faster than its predecessor. There are also improved vocal modes with the ability to assign separate modes for pitch, timbre and pronunciation. A mouth opening parameter helps to fundamentally change the pronunciation of vowels. This can be used to emphasize certain words or change the way a phrase begins or ends. With Korean support, there is also another synthesis language option to choose from.

Synthesizer V Studio 2 Pro supports VST, AU and AAX formats and can be purchased from March 21 for 99 US Dollars.

store.dreamtonics.com



More info





12 legendary reverberation chambers for your studio with HitVerb

The Hit Factory HitVerb makes legendary studios available to everyone with the new HitVerb convolution reverb plug-in. Using complex convolution technology, the characteristic sound of twelve studio rooms is simulated. The rooms were recreated exactly and in detail using impulse responses so that they can be reproduced digitally in HitVerb. These reverberation chambers have already been used in countless hits by Stevie Wonder, Bruce Springsteen, Michael Jackson, Celine Dion, Mariah Carey, Meat Loaf, Maroon 5, Adele, etc. The sound of the room can be individually modified using the high and low pass filters and virtual carpets to dampen the reverberation. There are also controls for the reverberation time and early reflections. Three freely positionable microphone pairs (Neumann U67, Coles 4038, Sennheiser MKH 800) are also available. For an immediate start, there are plenty of presets from first-class studio engineers on board. You can also develop your own presets.

HitVerb is now available for 232 Euros. It supports the AAX, VST3 and AU formats. An iLok License Manager is required.



More info

thehitfactoryplugins.com
audiowerk.eu



More punch with 51 drum kits and 48 effects for BFD drums

With BFD Drums 3.5, FX Pansion presents the latest generation of its plug-in for drum production. For the update, the engine has been tweaked under the hood to further increase realism and sound customization. Visually, the user interface has been refreshed with new icons and improved navigation. There is also a new mixer and a sound browser for greater convenience. BFD Drums 3.5 is equipped with 51 drum kits suitable for rock, jazz and metal. To save you time, there are 60 preconfigured kits with user-defined articulations and effects for brilliant drums. Dozens of grooves and 82 groove palettes provide the right rhythm. These work together for a more authentic and "human" feel. There are a total of 48 effects, 13 of which are from AIR Music Tech. The drum editor and mic sections allow you to fine-tune the drums with the positioning of the microphones. The new Mics Panel allows you to flexibly adjust the volume and arrangement of the mics.

BFD 3.5 is now available for just 199 Euros. The tool supports the AU, VST, VST3 and AAX formats.



More info

bfddrums.com



Creative beats and remixes with Playbeat 4

Audiomodern heralds the next generation of the popular groove generator with Playbeat 4. With the help of AI-supported algorithms, an infinite number of dynamic beats and rhythm patterns can be generated from samples. No two beats are the same, creating a new dynamic experience with every creation. It doesn't matter whether you are creating drum patterns, feeding modules with MIDI or quickly generating endless remixes. The integrated library includes patterns, sounds and 1500 kits that support production with dynamic drum tracks. Another advantage is that the longer you use Playbeat, the more Playbeat personalizes the creative process, increasing the precision and flexibility of the beats you want. The new genre-based random function allows you to select your favorite music styles. Thanks to an export option, you can also easily create your own expansion packs.

Playbeat is now available for 69 Euros instead of the regular 89 Euros. Owners of earlier versions can get the update for 29 Euros. The tool supports the formats VST3, AU, AAX and AUv3.



More info

audiomodern.com

Mobile recorder for USB microphone from Zoom

Zoom has introduced the PodTrak P2 Podcast Recorder for all owners of USB microphones who produce podcasts. This is Zoom's first mobile, battery-powered digital mixer and podcast recorder for USB microphones. The model offers connection options for two USB microphones and two headphone connections. Thanks to AI noise reduction, the recorder learns, analyzes and reduces background noise so that the voice is always the focus. The PodTrak P2 enables recording in broadcast quality on up to four tracks at 24-bit / 48KHz. Functions such as tone shaping, de-essing and a compressor as internal effects also contribute to the best possible sound. The recordings can be saved directly to microSDXC or microSDHC memory cards. The model, which can also be used on battery power, also provides audio notifications for battery status, remaining memory and other information. In addition to podcasting, the recorder is also suitable for streaming.

The PodTrak P2 podcast recorder will be available from specialist retailers in the second quarter of 2025 at a price of 119 Euros.



More info

sound-service.eu | zoomcorp.com





6.000 listeners
are already on board! You too?

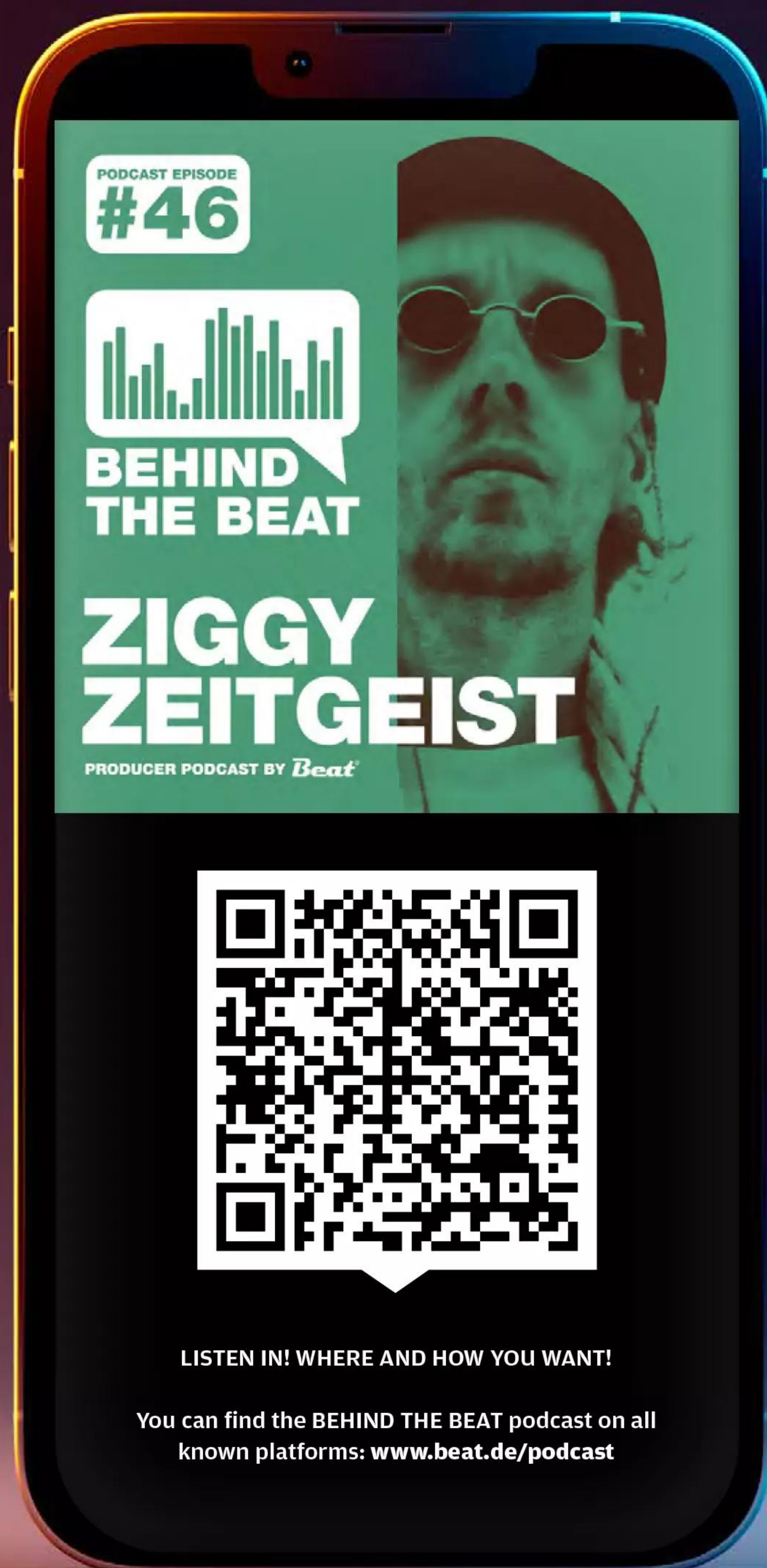
Episode #46 with Ziggy Zeitgeist

A cocktail of psychedelic magic

Tobias Fischer is your host for the Behind the Beat Podcast. This episode is dedicated to Berlin-based drummer Ziggy Zeitgeist, whose new double album „INSPIRE // RADICALISE“ targets the dance floor with jazz, beats, and a potent cocktail of psychedelic magic.

Drummer Drummers are naturally connected to the dancefloor in a very immediate way. With Ziggy Zeitgeist, that connection to the beat runs even deeper. On the new album by his FEE collective, which features a colourful cast of musicians, the body is merely a portal leading to creative inspiration, the rhythm a call for revolution. And so, over the course of this sprawling work transcending all stylistic boundaries, the pulse very rarely remains within the resting zone – an ultra-high intensity workout for ears and legs, so to speak.

Designed as an auditory time machine, „INSPIRE // RADICALISE“ transports its audience to that infinitely fascinating phase between the 70s and 80s, when funk, disco, electro and early house electrified the clubs, shedding new light on this period by breaking it through the lens of modern studio technology and the urgency of jazz. Also frequently



doubling up as a DJ, Ziggy puts his skills for creating captivating flows to good use, seamlessly fusing these 18 tracks, which occasionally venture into psychedelic or krautrock territory, into a single, coherent whole.

The thing is: Jazz, at its heart, was always dance music. Played in sweaty clubs in front of euphoric audiences. Loud, lascivious and with a single goal: ecstasy. This is the kind of tradition that Freedom Energy Exchange adhere to, this is the kind of message their mostly instrumental music, fuelled by Ziggy's irresistible grooves, endeavours to relay.

In a way, the album manages to capture Ziggy's formative years at open-air raves in his native Australia, where music merged with the environment, flowing from nature to the dancers and feeding back into it. These were spiritual experiences, but at the same time an opportunity to let loose. Which may hint at the creative core of „INSPIRE // RADICALISE“: True change is the result of passion - and the path to the next revolution must always go through the heart first.

www.beat.de/podcast





Isabelle Beaucamp

At the EMS School, I learned to produce independently and efficiently because the practical lessons and access to professional equipment allowed me to develop both technical skills and creative self-confidence.

On the 15th anniversary of the EMS – Electronic Music School

Producing, Learning and Marketing



ems
electronic music school

The EMS - Electronic Music School should be familiar to Beat readers, not least of all thanks to our joint Song Starter section, in which Jeyènne and Adrian regularly provide tutorial videos with downloads. On the occasion of its anniversary, we talked to CEO Jeyènne about its development over the past 15 years and plans for the future. In the interview, he provides exciting insights into the work of the EMS and explains why modern 'music education' is more important today than ever. **by Marco Scherer**

Beat / Hi Jeyènne, finally 15! So, first of all, congratulations on your anniversary. And the first question: Why the EMS? What was the reason for its founding in 2010?

Jeyènne / The story of the EMS - Electronic Music School is also a part of my own. When I was once again in a creative rut, I looked for a way to continue – but without the pressure of constantly having to write club hits just to get gigs and pay my rent. As I've always enjoyed sharing knowledge and have regularly coached alongside Music Production – including working with drug addicts, difficult-to-educate youth, and as a motivational coach – in 2008, I came up with the idea to start an online school or platform for Electronic Music.

In 2009, I met Björn Torwellen, who now leads the SINEE Community. At that time, he was giving the first Ableton workshops in recording studios. In April 2010, we officially founded the EMS – with a starting budget of just 5,000 Euro. The money was exhausted after two months, followed by turbulent times with many ups and downs. But we continued, more and more students joined, and the tasks became more diverse. After two years, Björn left, and I continued to run the EMS with my partner at that time.

Beat / What changes have you observed in the electronic music scene and production since its founding?

Jeyènne / Musically, much has remained the same, but technically, a lot has changed. In 2010, the selec-

tion of plug-ins was still manageable, but they were already solid in terms of sound. Today, thanks to AI and clever programming, we have reached a point I always hoped for – some plug-ins simply sound out of this world. The possibilities are so overwhelming that I sometimes almost get lost in them. To avoid that, I always return to the core of the track, to the feeling that drives it.

What I see, critically, is the influence of social media. Many no longer want to produce Electronic Music because they love it, but because they see that 'Natasha Trixi' and 'DJ Naked' have millions of followers and jet around the world in private jets. DJ sets and live acts are staged or even faked – and the tragic thing is: Many believe it, copy it, and do it even worse. It continues to spread even wider. But what many do not understand: Without a real foundation, this journey will eventually end. Those who

do not truly understand Electronic Music will be left behind. The few who take it seriously in the end prevail – and rightly so.

Beat / What makes the EMS unique compared to other music schools?

Jeyènne / We are down-to-earth and approachable, rooted in Electronic Music and Techno from the beginning; we know the spirit, and live the message behind it – this is the basis of our teaching. We use Ableton Live and modern tools such as AI, cloud-based platforms, and subscription models for royalty-free samples, loops, and presets. Sure, sometimes 'Music for the Masses,' but always with depth, so you benefit for your whole life – not just for a show that is quickly forgotten.

Anyone who has ever been with us knows: Here, you get 100 % support – sometimes 12 hours a



Elisa Elisa

Attending the EMS was a turning point for me. It wasn't just about learning the technical aspects of production, but also about discovering my own sound, refining my creativity, and being surrounded by like-minded artists who motivated me to continue developing! The hands-on approach and mentorship from industry professionals gave me the confidence and skills to take my music to the next level. I would recommend it to anyone serious about finding their own place in Electronic Music!



Mira Falkenstein

The EMS is a very good place to get a basic understanding of production and the Ableton software, which previously seemed incredibly complex to me. What I particularly liked was the structured teaching on topics, each building on the other, and with a lot of practical exercises, you could get a feel for what you've learned. It helped me understand the basics so that, with further practice, I could navigate the software better and focus more on the creative process. Once the technical understanding is there, it's incredibly fun to keep discovering and trying new things.



Vero

The EMS provided me with invaluable support and helped me build a strong foundation for my music career by guiding me through important terms and tools. Thanks to their guidance, creating music became much more intuitive and accessible, compared to when I tried to learn everything on my own.

day and often far beyond the courses and individual coaching. In five months at the latest, you will be able to produce and mix your track professionally. My goal is to bring out the absolute maximum from each student. And when they are up there, thousands cheer for them, and they can say: *I was with Jeyënne at the EMS* – then that is the greatest thing for me and the school.

Beat / Social media presence is everything, it seems sometimes. At least, they are important because you have to market your music as well. Besides producing, the students learn exactly that from you so that they don't just make music in solitude but also gain a foothold in the industry or scene. Can you tell us about a few success stories of former students who are now active in the music industry?

Jeyënne / Oh, there are quite a few! Isabelle Beaucamp is currently really successful, just like Mira Falkenstein from Cologne. Metaraph, who is signed to Ellen Allien's Bpitch Control, is now touring the world. Elisa Elisa and Carmen Elektro completed our Producer Course, and Toni Ba has just returned from a South American tour. Then, there is DJ Hyperdrive, Djingis Khan, Vero from the Netherlands... The Sindex label from Philine, Biliguudei from Mongolia, or Martinii from Mexico. All have completed at least the entry-level Producer Course.

And these are just a few examples – there are many more who can, at least partially or even completely, make a living from music.

Beat / How has the EMS course offering changed over the years and adapted to new trends?

Jeyënne / We constantly communicate with our DJs and Producers who perform or play live in clubs worldwide. Additionally, our students bring new trends into the school that they pick up. This way, we often know exactly what's currently going well in clubs and can continuously adapt our course offering to meet demand – ensuring we stay on the cutting edge.

Beat / What role does the Berlin club scene play for the EMS and its students?

Jeyënne / The EMS is represented at two locations – in Cologne and Berlin. Particularly in Berlin, despite noticeable club closures, remains a creative melting pot for new music and often a trendsetter for the International Scene. The club culture of the city is an invaluable source of inspiration and practical playground for our students. Here, they experience trends and sounds up close, build valuable networks, and can test their productions directly with the audience. Many of them are already behind the decks or on stage in Berlin clubs, gaining essential experience.

At the same time, the influences of this unique scene flow directly into our courses – whether through instructors deeply rooted in club culture or through exclusive insights into the mechanisms of the scene and industry.

Beat / How do you see the future of Electronic Music Production and how does the EMS prepare its students for it?

Jeyënne / We are in the process of establishing new short workshops like the Producer Week, where the focus is on refreshing or solidifying all the skills of a Producer in one week. However, this requires at least beginner knowledge. Additionally, we release free tutorials. Currently, we are experimenting a bit, as we don't want to do the same as everyone else. Our strength, however, remains the offline courses. Many come to us saying they are bored

by tutorials as they aren't efficient and sustainable enough. They want to learn on location or attend online courses in real-time, with the possibility of participating actively. The effect is the same as with AI: Offline or in a group, it is simply more fun, and you produce differently.

Of course, we will continue to use more AI-supported plugins and integrate them into our courses, but as I mentioned before, AI is not going to take over the entire production workflow. If you're in it for quick money, you can already produce entire tracks with AI. If I want a music piece generated with AI, but don't know what to input, I have to learn how to put together the right melodies, rhythms, and chords and understand how tempo and mood relate in order to understand the essence of the music. So if you want to be taken seriously as a producer, artist, and DJ, then learn to produce *from scratch*. The fun factor is immense!

Beat / Looking back over the past 15 years, what makes you most proud?

Jeyënne / Three things: 1. The many students who started their DJ or Producer careers through the EMS and are still successful. 2. My team and I secured the two locations in Berlin and Cologne through the Coronavirus crisis and persevered despite numerous challenges. 3. I am very proud that the EMS continues to evolve, stays current, and has thoroughly positive future prospects – even in traditional producing.

Anyone currently worrying about AI Producers should relax: Your work and your industry branch will be safe in the future. 🌟

GIVEAWAY

On the occasion of the 15th Anniversary, the EMS is giving away a complete Producer Course and a DJ Week! Participate at:

www.em-school.com/beat

The giveaway will take place on 15.04.2025, and the winners will be notified via email.



Toni Ba

The EMS greatly helped me to better understand Ableton and use it specifically for my productions. The lessons were particularly valuable to me for clearly expressing and implementing my musical ideas. I not only learned to master the program better, but also to deepen my skills in using and identifying different music structures.

Editorial

BEAT introduces itself



Jan Wilking

Synthesizers, samplers and drum machines have defined his life for a good four decades. Inspired by the emerging Synth Pop of the early 80s, particularly the first concerts as a budding teenager like Depeche Mode, Nitzer Ebb and Shock Therapy shaped his further development, which led to the founding of the EBM/Industrial project STERIL in 1990, which was successful mainly in the USA. From the simple cassette recorder, Casio keyboard and mono sampler with mini-memory to the modern DAW with almost unlimited possibilities, Jan has witnessed the development of electronic music production, with his personal conclusion: Less is often more!



Sascha Blach

Passionate music nerd who likes variety as a listener, as well as a singer, musician and producer, because he thinks variety is what makes life interesting - from melancholic Folk to Pop, Electronica and Techno to Indie Rock and Metal, there's a lot here. Busy songwriter. Besides his own various projects, he also makes production music. Convinced Apple and Logic user. Loves guitar pedals. Likes to work on a mix for months and still claims to work effectively. Prefers profundity to small talk. That's why he's also doing extensive interviews at BEAT. In short: Somehow damn versatile, our Sascha!



Marco Scherer

Producer, Sound Designer, DJ and Gear Nerd with a big soft spot for samplers. Marco has been making music for as long as he can remember, loves his studio and even runs around outside with microphones and recorders to find and bend the best sounds. Produces Psytrance under Datacult, Techno under the name Villa Violet and creates with his „Drum Depot“ kits for current drum samplers. At BEAT, he is the contact person for (almost) everything and puts his heart and soul into it.



Mario Schumacher

Mario has been on board since the first issue. His musical output is as versatile as his contributions to BEAT: While his Edge Of Dawn explores the field of tension between Synth Pop and Electro, Mario produces Cinematic Electronic Music for Film, TV and Advertising under the name Raging Silence for, among others, Mercedes Benz, Porsche, Audi, Philips and Puma.



Maya Consuelo Sternel

Maya Consuelo Sternel, a.k.a. Donna Maya, is a musician, producer and sound artist. She plays Theremin and releases Underground Techno. After earning her Audio Engineer degree, she worked in New York at Unique Recording in Times Square, overseeing productions from Run DMC to Joe Lynn Turner. She is an Ableton Certified Trainer, runs Upstart Electronic Music Education and is co-founder of the Ableton User Group Berlin.

Tobias Fischer

Journalist, author, label owner, listener. Tobias has been writing about music for almost 20 years; 15 of them for BEAT. In doing so, he prefers to go deep below the surface. This is also the case in his „Behind the Beat“ podcast. As long as there is music, Tobias will ask questions - either for new book projects or, in the meanwhile, for the almost 4000 interviews for his project „15 Questions“.

Daniel Bock

New addition to the BEAT team. Actually a guitarist and actually plays Funk, Rock, Alternative & Metal, but secretly always squinted to the synths and Electronic Music. Tells himself that jamming is actually the real music making and producing tracks is not really necessary. Loves gear and creative gear. What would be better for this than a modular system? Consequently, therefore, also responsible for the Eurorack corner of the BEAT.



Carl-Philipp Schmeller

Carl-Philipp has been with Beat since issue 1. His home is Commercial Electronic Music, which he has been passionate about since the 90s and also produces in his own home studio. He also conducts seminars in the field. At Beat, he is responsible for News, Workshops, Reviews and Tests; especially for the last two years now for the English edition and for Beat.de.



Ricarda Becker

Good Fairy, Layout Fairy or simply Graphic Designer... Ricarda has many titles, but only one task: to make the magazine as beautiful as possible. The graphic design is analogous to music: underneath the final result lies a lot of work, sweat and technology that you don't even see when you just look at it. We are all the more pleased to have her!



Dagmar Pawlowsky

Responsible for sales and co-operations. Dagmar loves Berlin, her dog Leo and BEAT magazine. She enjoys listening to Electro Punk and always likes to be at the front at concerts. In her spare time, she organises small concerts and other events.



LENSYS PROFESSIONAL I CLOSED-BACK HEADPHONES

HANDCRAFTED
IN FRANCE

Headphones you won't want to leave behind. The Lensys Professional is a closed-back headphone that is the perfect addition to your audio engineering toolkit, whether in the studio or on the road. The patented drivers create precise sound and a remarkable stereo image. And thanks to their flexible, smoothly curved headband, you'll forget you're even wearing headphones.

Accuracy. Anywhere.

FROM BEGINNER TO EXPERT

AUDIO INTERFACES

MEGA TEST: 42 MODELS COMPARED
YOUR MARKET CHECK ON 18 PAGES



Whether you're recording melodies or vocals, playing or sampling beats, integrating a modular system into your DAW, or performing live – everything will run smoothly only with the right audio or CV interfaces. But which ones best suit your workflow? And how do you integrate iOS apps? On the following 18 pages, we clarify the most important questions directly with the manufacturers in the big market check, recommend setups for beginners and advanced users, present models for the studio and on the go, and also offer concrete tips on how to effectively optimize and expand your setup. Plus, we'll provide an overview of pitfalls when setting up interfaces.

by Christoph Strauß, Vera Schumacher, Marco Scherer, Sascha Blach

Along with a high-performance computer and good monitoring equipment, the audio interface is one of the most important components in a computer-based studio. But what should you consider when purchasing one, and how do you find the right audio interface for your individual needs?

An important decision criterion is the number of instruments and microphones to be connected. For example, a typical songwriter setup consists of a microphone and an electric guitar, so two inputs would be needed: a microphone and a high-impedance (Hi-Z) instrument input. For a typical home recording setup where music is created exclusively with plug-ins, a stereo output is sufficient, but a MIDI input for a keyboard or synthesizer would be useful.

But it's not just the number of connections that matters, but also their type. While your home stereo system or boombox still uses RCA cables or a mini jack, 6.3-inch jack or XLR connections are standard

for professional recording. You'll find the former on guitars and synthesizers, while most microphones are designed for XLR. The most important interface for audio interfaces is USB. FireFire has since been replaced by Thunderbolt, which offers fantastic latency but isn't supported by all interfaces. And not every PC has the appropriate connections. Many audio interfaces also score points with a comprehensive software package – an aspect that can be crucial when making a purchasing decision, and not just for beginners. In addition to high-quality plug-ins, some even include entry-level versions of DAWs like Ableton Live Lite or Presonus Studio One Artist.

Additional inputs and outputs?

With ADAT interfaces, you can easily add inputs and outputs to your audio interface or digital mixer. Your audio interface only needs an ADAT interface. Thanks to optical transmission via TOS-link over fiber optic cables, up to eight tracks can be transmitted simultaneously and losslessly. The biggest advantage of current interfaces is the ability to cascade multiple channels via ADAT to expand the number of inputs and outputs. Devices from different types and manufacturers can be easily combined. Up to 16 devices or 128 tracks can work together. Each channel can be enhanced with effect plug-ins in your DAW as desired.

Combining multiple interfaces

What do you do if you want to combine multiple audio interfaces, but not all of them support ADAT? Mac users can easily create a new „Aggregate Device“ in „Audio MIDI Setup“ and select which of the existing devices you want to combine by checking the boxes. Then all you have to do is name the new device and set it up as an audio interface in the desired applications. Windows users, on the other hand, can combine at least two interfaces using the free ASIO4ALL driver.

The best of both worlds

If you don't want to give up the mixing workflow of a hardware mixer but still want to enjoy the benefits of a computer-based setup, a digital mixer with an integrated audio interface might be of interest to you. Popular models include the Presonus StudioLive 32SC, Tascam Model 12, and Behringer X32. 🎵

Lewitt Connect 2 & 6: Interfaces „just got easy“

Lewitt has launched two audio interfaces, the Connect 2 and the Connect 6, that are aimed primarily at streamers, singers, and content creators. Both impress with their ease of use and high-quality workmanship, but differ in their features and connectivity options.

The Connect 2 is a compact interface ideal for beginners and mobile recording. It is operated via a touch interface, making it the perfect solution for anyone looking for a straightforward and highly portable recording solution.

The Connect 6, on the other hand, is aimed at advanced users such as musicians, podcasters, and content creators. It connects to a computer via USB-C and also offers the option of directly connecting mobile devices such as tablets. The Connect 6 also features high-quality preamps and integrated DSP effects. The accompanying Lewitt Control Center software enables extensive routing options and detailed settings. A practical „auto setup“ function simplifies configuration for common recording scenarios. 🎵

www.lewitt-audio.com



Connect 2



Connect 6



The 30 most frequently asked questions about audio-interfaces

Audio-interfaces FAQ

... and, of course, you'll find the answers in our extensive FAQ. Choosing the right audio interface can be overwhelming given the multitude of options and specifications. Here, we answer the most frequently asked questions, from basic features to advanced applications, to help you make the decision and get the most out of your setup.

1 How does the bit depth affect the audio quality of an interface?

The bit depth determines the dynamic range of the recording. 24-bit interfaces offer a theoretical dynamic range of approximately 144 dB, which is significantly higher than human hearing and provides more headroom for recordings than 16-bit, which has a dynamic range of approximately 96 dB.

2 What role does jitter play in audio interfaces?

Jitter refers to timing inaccuracies in the digitization of audio. Low jitter is crucial for precise stereo imaging and sound detail. High-quality interfaces use special jitter reduction technologies such as precise clock generators.

3 How does ADAT expansion work with audio interfaces?

ADAT expansion allows for eight additional digital channels to be connected via an optical cable. This allows for cost-effective expansion of inputs and outputs without the need for additional A/D or D/A converters in the main unit.

4 What are the advantages and disadvantages of USB-C versus Thunderbolt for audio interfaces?

USB-C offers high compatibility and sufficient bandwidth for most applications. Thunderbolt offers even higher bandwidth and lower latency, but is less common and often more expensive. Thunderbolt can be advantageous for professional setups with many channels.

Integrate analog effects devices with the Audient iD48

Even though most of us work purely digitally, at least when it comes to mixing and mastering, some of us probably dream of incorporating a few hardware effects into our setup. Even that's not rocket science these days – for example, with the Audient iD48. The 19-inch USB audio interface offers eight balanced inserts to which you can connect your favorite hardware and integrate it into your DAW. Or you can use it as an analog recording chain, as it also has eight combo XLR inputs, which are sufficient for recording a full drum kit or a small band. And if you need more preamps, you can easily expand the iD48 with up to 16 microphone inputs via ADAT or SPDIF.

The Audient iD48 isn't just an audio interface; it's also a monitor controller. Outputs for two

pairs of monitors and two headphones with individual volume controls are available. A button on the front panel is provided for switching between the monitor pairs—as is a button for activating talkback, which can be a USB microphone or the computer's internal microphone. This also keeps a preamp free. And the two assignable buttons allow you to switch between dimming and mono summing, for example.

This means that with the Audient iD48, you not only integrate your favorite hardware, but you can also use it for recording and monitoring. You can easily configure routing and function assignments using the included software, which even lets you save different configurations. ■■

KEY FEATURES

- 24 inputs
- 32 outputs (24 via USB)
- 8 combo XLR preamps (expandable via ADAT/SPDIF)
- Integrated monitor controller
- 24-bit/96 kHz



see video

www.audient.com



5 How do different preamp designs affect the sound of an interface?

Preamp designs can greatly influence the sound character. Transistor-based designs are often neutral and low-noise, while tube preamps can produce a warmer, slightly distorted sound. Some interfaces offer emulated vintage preamp sounds.

6 What is the difference between microphone and line-level inputs?

Microphone inputs are designed for weaker signals and offer higher gain, often with phantom power. Line-level inputs are designed for stronger signals from instruments or external devices and require less gain.

7 How does gain staging work in an audio interface?

Gain staging refers to the optimal setting of the input gain. The goal is to obtain the strongest possible signal without risking clipping. Modern interfaces often offer clip indicators and automatic gain adjustment.



8 What role does impedance play in audio interface inputs?

Input impedance affects how well the interface performs with different signal sources. High-impedance inputs (Hi-Z) are ideal for passive electric guitars and basses, while low-impedance inputs are better suited for microphones and line-level devices.

9 How do class-compliant and non-class-compliant interfaces differ?

Class-compliant interfaces work without special drivers on standardized operating systems and are often compatible with mobile devices. Non-class-compliant interfaces require special drivers but often offer enhanced functionality and better performance.

10 What are the advantages of DSP-based audio interfaces?

DSP-based interfaces can handle effects and processors directly in the hardware, reducing CPU load and enabling latency-free monitoring with effects. They often offer proprietary plugins that are seamlessly integrated with the hardware.

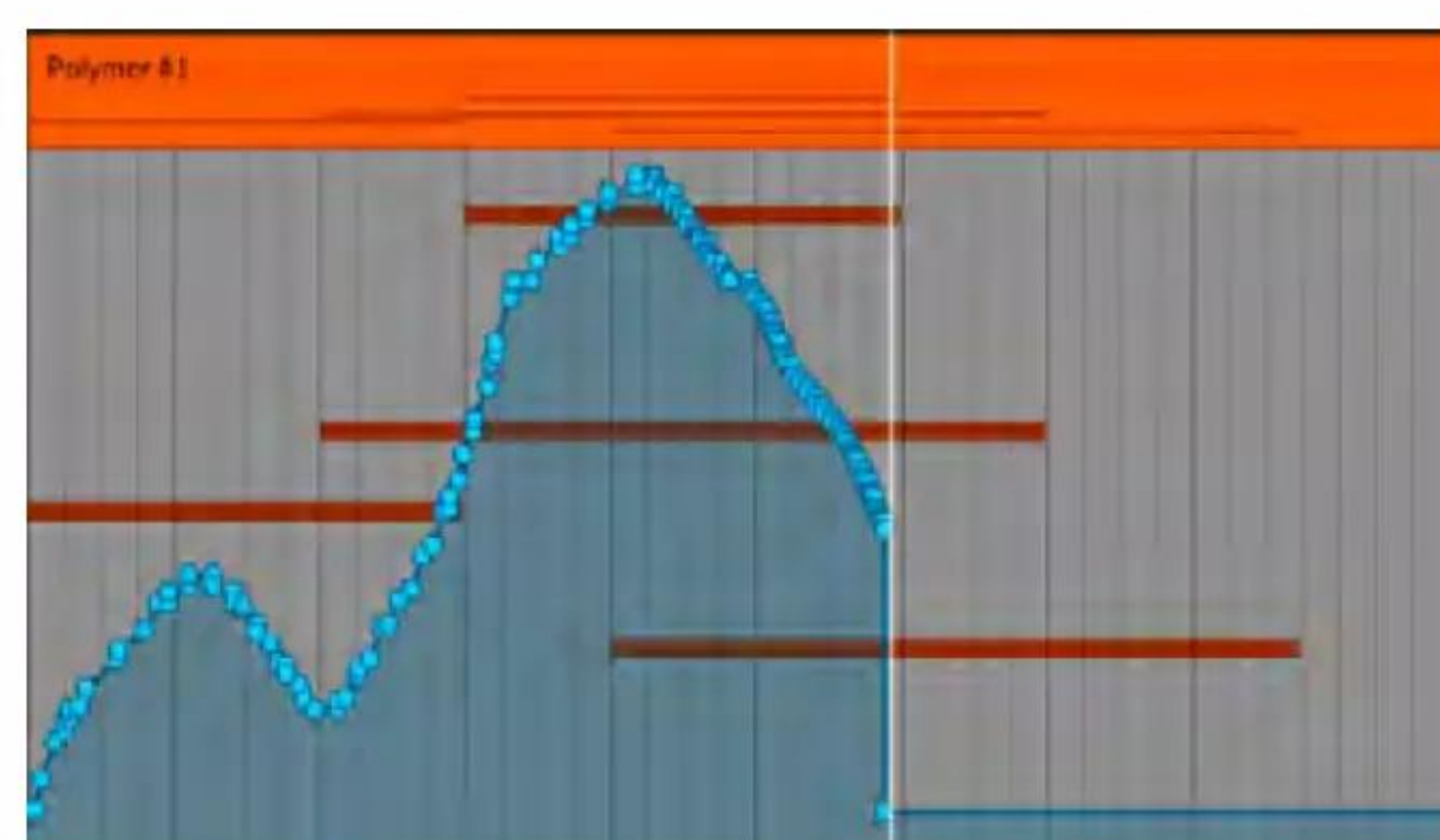
11 How does the quality of the D/A converters affect playback quality?

High-quality D/A converters provide more precise reconstruction of the digital signal, resulting in more detailed, clearer playback. They can deliver finer nuances and better stereo imaging, which is especially important during mastering.

Bitwig Connect: Easily integrate synths into your DAW

There are various ways to integrate hardware synthesizers and rack modules into digital music production environments: via audio output/input, via MIDI, or using CV. With the Connect 4/12, Bitwig presents a solution that offers all of these possibilities. And more. The Berlin-based company's first USB audio interface boasts an innovative and forward-looking concept.

In terms of connectivity, the Connect 4/12 is equipped with a combo XLR input, an instrument/line input, and a MIDI input and output in the form of mini-jack sockets including a DIN adapter. This is complemented by three stereo jack outputs (L/R), a headphone output, as well as two CV inputs and



four CV outputs. That's right! The six DC-coupled CV connectors are calibrated and send/receive signals of 1V/octave. Hardware integration with the in-house DAW Bitwig Studio also enables MIDI translation, oscillator pitch adjustment, and control of external sound generators within the DAW.

Speaking of control: The transport functions of the Connect 4/12 work with any DAW that supports the MCU protocol. When used in conjunction with Bitwig Studio, further advantages arise. The large rotary control is assigned several switchable functions and can be mapped to any DAW parameter in addition to monitoring settings. This allows you to create automation and control the timeline, for example. This is not only convenient, but thanks to 12-bit resolution, it also offers over 30 times finer gradations than MIDI. The Connect 4/12 is a perfect example of how audio interfaces don't have to be just boring converters. 🎛️

www.bitwig.com



KEY FEATURES

- 4 inputs
- 12 outputs (6 via 6.3 mm jack, 1 dedicated 6.3 mm stereo headphone)
- DAW transport functions
- Advanced features when used with Bitwig Studio
- 24-bit/192 kHz



See video



12 What is the difference between balanced and unbalanced outputs?

Balanced outputs use two conductors for the signal and one for ground, effectively suppressing noise. Unbalanced outputs are more susceptible to interference, especially over longer cable runs. Professional interfaces usually offer balanced outputs.

13 How does word clock synchronization work with multiple audio interfaces?

Word clock synchronization ensures that multiple digital audio devices operate at exactly the same clock speed. A master device sets the clock speed, which the other devices follow. This prevents problems such as clicks or phase shifts when using multiple interfaces.

14 What are the advantages and disadvantages of multitrack recording directly to SD card?

Some interfaces offer direct recording to SD card, allowing for computer-independent work. The advantages are mobility and reliability. Disadvantages can include limited editing options and less flexibility compared to DAW-based recording.

15 How does buffer size affect latency and CPU load?

Smaller buffer sizes reduce latency but increase CPU load. Larger buffers reduce CPU load but increase latency. The optimal setting depends on system performance and the recording or playback requirements.

16 What are the differences between USB 2.0, USB 3.0, and USB 3.1 for audio interfaces?

USB 2.0 offers sufficient bandwidth for most applications. USB 3.0 and 3.1 enable higher data rates, which can be useful for interfaces with many channels or very high sample rates. They can also deliver more power, which is advantageous for some interfaces.

17 How does loopback recording work with audio interfaces?

Loopback allows you to record computer sounds directly through the interface, without external cables. This is useful for screencasts, streaming, or recording internet audio. This feature is often implemented using dedicated drivers or routing software.

18 What is the difference between microphone and instrument preamps in interfaces?

Microphone preamps are designed for low signal levels and high gain, often with phantom power. Instrument preamps (Hi-Z) are designed for higher impedances, such as those found in passive electric guitars or basses, and often offer less but adjusted gain.

Icon Pro Audio 32Ci: Console sound in desktop format

The sound of analog mixing consoles remains popular and sought after. There are already plenty of replicas of legendary consoles, both in hardware and software. One manufacturer that rarely appears in this context, however, is Harrison. Icon Pro Audio has exploited this gap and developed the 32Ci, a USB audio interface that emulates the microphone preamps and filters of the original Harrison 32C mixer. Their sound can be heard in productions by Michael Jackson, Genesis, and AC/DC, among others.

The components were naturally popular due to their sonic coloration. The high-pass and low-pass filters also have the unique feature of offering a very wide sweep range thanks to the dual-log potentiometers. This allows them to overlap to such an extent that the passband can even be completely eliminated. And with the Bump button, you can activate the subtle resonances of the original filters, which completes the sound experience.

This iconic circuit combines the Icon Pro Audio 32Ci with modern features in a compact 12-in/12-out audio interface. These include two discrete

headphone and monitor outputs, MIDI inputs and outputs (DIN), and an ADAT interface – all at 24-bit/192 kHz resolution. Routing is easily managed on your computer using the included software. 🎵

www.iconproaudio.com



See video

KEY FEATURES

- 4 non-ADAT inputs/outputs
- 2 Harrison C32 combo XLR preamps
- Harrison 32C high-pass and low-pass filters
- 24-bit/192 kHz



19 How does the number of preamps affect the flexibility of an interface?

More preamps allow for simultaneous recording of multiple microphones or instruments, which is important for band recordings or complex setups. Fewer preamps may be sufficient for solo artists or simple productions, but they limit expansion options.

20 What are the advantages of modular audio interface systems?

Modular systems allow for flexible expansion of inputs and outputs as needed. They can be more cost-effective than purchasing a large interface and allow for gradual upgrades. A disadvantage can be increased setup complexity.

21 How does re-amping work with an audio interface?

Re-amping sends a recorded, dry guitar signal back through an amplifier. Special re-amp boxes or interfaces with dedicated re-amp functions adjust the line-level signal to the guitar level and ensure the correct impedance.

22 What is the difference between mic/line and Hi-Z inputs?

Mic/line inputs are optimized for microphones and line-level devices, while Hi-Z inputs offer a higher input impedance for passive electric guitars and basses. Hi-Z inputs prevent the loss of high frequencies and dynamics in instruments with high output impedance.

23 How does the clock source affect audio quality?

A precise clock source is crucial for the accuracy of A/D and D/A conversion. High-quality interfaces often use temperature-stable, precise oscillators. When using multiple digital devices, correct clock synchronization is important to avoid artifacts.

24 What are the advantages and disadvantages of Audio over IP solutions compared to traditional interfaces?

Audio over IP enables flexible routing options and long distances between devices. It can simplify cabling and is scalable. Disadvantages can include higher latency, setup complexity, and the need for dedicated network infrastructure.

25 How does direct monitoring work and what are its advantages?

Direct monitoring routes the input signal directly to the output, bypassing computer processing. This enables latency-free monitoring, which is especially important when recording vocals or time-critical instruments. Some interfaces also allow you to add effects to the direct monitor signal.

26 What is the difference between standalone and host-based DSP effects in interfaces?

Standalone DSP effects are processed directly in the interface and operate independently of the computer, often with lower latency. Host-based effects utilize the computer's CPU and often offer more flexibility and updates, but can increase system load.

Zoom AMS series: Content creation everywhere

As a musician, producer, or DJ, you're automatically a content creator these days. Those who produce and livestream videos in addition to their music face different requirements depending on the format.

While discrete individual signals are usually preferred for recording and production, stereo mixes are advantageous for videos and live streams. To be prepared for all eventualities, a suitable audio interface with the appropriate features is recommended. These include, for example, devices in the AMS series from Zoom. The AMS-22, AMS-24, and AMS-44 offer modes for music and streaming, which can be switched between. In music mode, up to four microphone/instrument signals (depending on the model) are recorded separately. In streaming mode, however, the channels are combined by the audio interface into a stereo mix. The volume of the individual input signals can be adjusted independently in both modes, allowing a suitable mix to be created directly on the device. For stereo signals, two channels can be linked and controlled homogeneously using a gain control.

In addition, the USB audio interfaces in the AMS series from Zoom have a slight size advantage. The smallest model, the AMS-22, is just the size of your palm. The largest model, the AMS-44, is only about the size of an outstretched hand. This means you literally always have a professional converter at your fingertips – for recordings during rehearsals or real-life streams. And to save your smartphone or laptop's battery life, especially when you're on the go, the AMS interfaces can also be powered by battery power. 🎵

www.zoom-europe.com

KEY FEATURES

- 2/4 inputs (AMS-22 & AMS-24/AMS-44)
- 1 Monitor output
- 1 Headphone output
- Optional battery operation
- 24-bit/96 kHz



See video

27 How does the quality of the headphone amplifiers affect the monitoring experience?

High-quality headphone amplifiers offer more precise, detailed reproduction and can adequately drive even power-hungry headphones. They can offer a wider dynamic range and lower distortion, which is especially important for critical monitoring and mixing.

28 What are the differences between consumer- and pro-level interfaces in terms of signal levels?

Pro-level interfaces often operate at higher signal levels (+4 dBu) for better signal-to-noise ratio and more headroom. Consumer devices typically use lower levels (-10 dBV). Pro-level interfaces often offer switching between the two standards.

29 How does daisy-chaining work with audio interfaces, and what are its advantages?

Daisy-chaining allows multiple interfaces to be connected in series, often via Thunderbolt or special protocols. This allows for the expansion of inputs and outputs without additional computer ports. The advantages are flexibility and scalability; possible disadvantages include increased latency in long chains.

30 What are the differences between hardware and software monitoring?

Hardware monitoring occurs directly in the interface with minimal latency, but is often limited to few or no effects. Software monitoring utilizes the DAW and enables complex effects chains and mixes, but can result in higher latency. Many modern setups combine both approaches for maximum flexibility.

31 What are loopback and DirectWIRE?

Loopback in an audio interface allows internal audio signals - be it in-game audio, system audio, or virtual instruments - to be routed back into the interface for reuse in other applications. In other words, loopback redirects any audio played through headphones or studio monitors with perfect fidelity to another app for streaming or recording. However, while microphone and instrument inputs on the interface require physical connections to capture audio, loopback takes place entirely on the digital level.

32 Is there an advantage of USB 3.1 over USB 3.0?

USB 3.1 is an evolution of USB 3.0 and offers higher bandwidth than USB 3.0, enabling faster data transfer. This standard also provides higher power delivery. USB 3.1 is also more energy-efficient, which can help extend the battery life of mobile devices. USB 3.1 supports the new USB-C connector, which has a reversible design and allows both data transfer and power delivery. The only disadvantage of USB 3.1 is that the cable length is limited to one meter. For audio interfaces, USB 3.1 specifically means that an audio interface can be connected to a computer using only USB power and still offer four microphone preamps that simultaneously provide 48V phantom power, without the computer or audio interface being connected to an external power source.

33 What exactly is CC Mode in an audio interface?

Class-compliant mode is an operating mode for audio interfaces that allows the interface to be used without special driver software. In this mode, the audio interface is equipped with a standard driver that is automatically recognized by most operating systems. Thus, an audio interface that offers

Lots of connections: The 60 channels of the MOTU 828

www.klemm-music.de/motu

The latest generation of the 828 uses USB-C, offering modern connectivity. The 828 is aimed at professional musicians, sound engineers, and producers who require a versatile, high-quality audio interface and is suitable for both studio and live applications.

Key features include an incredible 60 inputs and outputs, including a wide range of analog and digital connections such as microphone, line, and instrument inputs, as well as ADAT and S/PDIF connections.

MOTU is known for its high audio quality, ensured by high-quality converters and preamps that enable precise and detailed sound reproduction. Integrated DSP effects enable latency-free

monitoring and real-time processing, while flexible routing options are enabled by the included software, which offers extensive routing and mixing features. It also features a re-amping function for guitars. 🎸



More info

TFT display for optimal metering

The high-resolution TFT display with 480 x 128 pixels and 24-bit RGB color depth enables precise metering, optimal level control, and a clear overview of all volume levels.

CUEMIX 5

Monitor mixing with effects

CueMix 5 for Mac, Windows, and iOS offers simple yet comprehensive graphical control over your mix, with graphical editing of parametric EQs and a touch-friendly interface (on iOS) for quick access to all mixing functions.



The MOTU 828 offers sample rates up to 192 kHz, 10 analog inputs and outputs, inserts, connections for ADAT, word clock, S/PDIF, MIDI, a footswitch, and even iOS devices.

Class-compliant mode can be used as a plug-and-play device that works immediately after connecting to the computer. However, Class-compliant mode also has some limitations: For example, some functions and settings of the interface may only be accessible via special driver software. Overall, Class-compliant mode is a useful feature for users who want to use their interface with different operating systems or computers and want simple plug-and-play functionality without having to install the appropriate drivers each time. 🍷

Glossary:

The most important features of audio-interfaces

ADAT

While ADAT was used to record video cassettes in the days of tape recorders, the interface is now used almost exclusively for transmitting bundled audio streams. Thanks to fiber optic cables, many tracks can be transmitted simultaneously and losslessly, for example, for cascading multiple audio interfaces to increase the number of inputs and outputs.

Direct Monitoring

Audio signals typically enter the computer via the interface's input, and then into the sequencer or DAW. However, if this input isn't assigned to a record-ready track, the signal won't be heard on the speakers. Direct Monitoring is designed for such cases, allowing incoming signals to be routed directly to the audio or headphone output.

Headroom

Technically speaking, headroom is a kind of safety margin between the nominal level (usually 0 dB) and the maximum possible level offered by an audio

interface or amplifier. In practice, sufficient headroom can absorb unwanted or unexpected peaks, preventing recordings from suddenly clipping.

Hi-Z, pad and line

These terms are used for audio inputs on interfaces and mixers. Hi-Z or High-Z stands for „high impedance“ (Z is the symbol for ohms), meaning very loud sources such as guitars. Inputs labeled accordingly are capable of handling high volume and attenuating it. The manual version is the Pad function, which lowers the level. Line also designates high-level devices such as keyboards and synthesizers.

Latency

When recording audio, you may notice a delay in the signal playback. This usually occurs because the computer needs a certain amount of time to process the signal and send it back to the audio interface. Well-written interface driver software can easily achieve an imperceptible delay of 12 ms or less without placing too much strain on the computer.

Phantom power and 48V

Some microphones, such as condenser or active ribbon microphones, require power to function properly. If your microphone requires phantom power, you'll need to enable the 48V function.

Sample rate, bit and kHz

Older samplers are still popular today for their retro sound, which is usually achieved thanks to the lower sampling depth and frequency. High-quality recordings, on the other hand, are only possible with high bit and sample rates. In short: the higher these rates are, the more detailed the signals can be recorded and played back. 🍷

The studio bridge: Your bridge between analog and digital

Imagine being able to retain the rich, warm sound of your analog mixer while simultaneously recording digitally—whether with your favorite DAW or directly with the Studio Bridge. That's exactly what the Studio Bridge makes possible.

Analog feel, digital power: Record your tracks with your DAW or Studio Bridge and then send them back to your analog mixer for summing. This transforms your digital recordings into vibrant, analog productions.

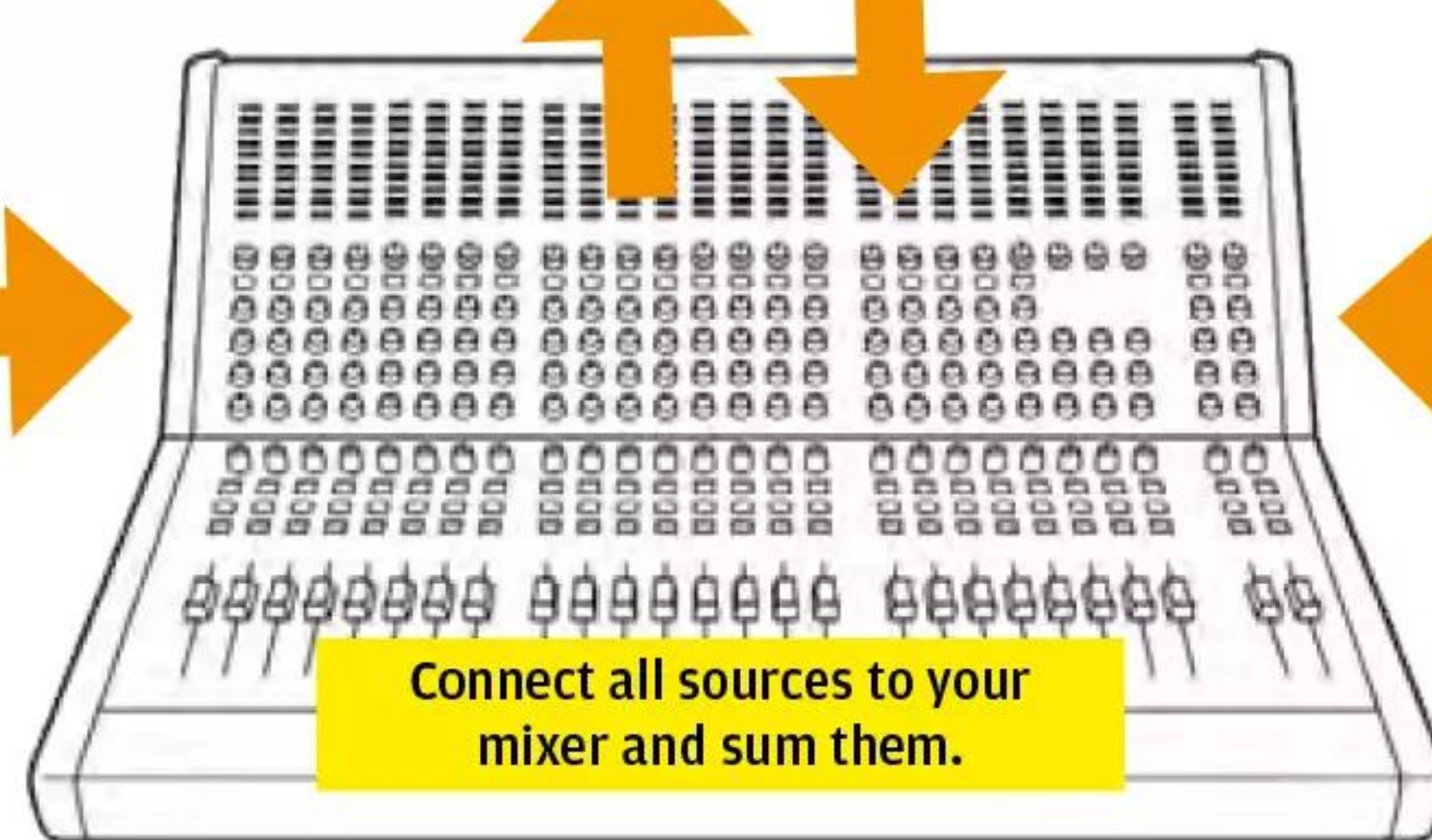
Flexible in the studio and live: Whether in the studio or on stage, the Tascam Studio Bridge connects your existing equipment with state-of-the-art recording technology and makes operation incredibly easy. All in a convenient, instal-



lable format.

The Studio Bridge is your perfect partner for combining the best of both worlds: the unparalleled sound of your analog equipment with the flexibility of digital recording. 🍷

www.tascam.eu



Manufacturer Model	Antelope Audio Zen Go Synergy Core 	Apogee Symphony Studio 8x16 	Arturia MiniFuse 2 	Arturia AudioFuse 16Rig 
Year of release	2024	2025	2021	2023
Max. resolution	24 Bit, 192kHz	24 Bit, 192kHz	24 Bit, 192kHz	24 Bit, 192kHz
Inputs	4x XLR/jack, 8x ADAT or 2x S/PDIF	8x XLR/jack	2x XLR/jack	2x XLR/jack, 16x jack line, 1x stereo line for tablets, smart-phones or synths, dual ADAT I/O for up to 16 channels
Outputs	2x monitor out, 2x Line Out	16x line out via D-Sub25	2x line out	8x DC-coupled line out, 2x monitor out
Type of connection	USB	USB-C	USB-C	USB-C
Additional connections	ADAT, S/PDIF	none	MIDI	ADAT, MIDI, Wordclock
Headphones outputs	2	2	1	2
Mikrophone preamps	4	8	2	2
Bus-powered	Yes	No	Yes	No
Software	Software bundle with 37 Synergy Core real-time effects	Apogee Control 2-Software	Ableton Live Lite, Analog Lab Intro, Pre 1973, Rev PLATE-140, Delay TAPE-201, Chorus JUN-6, NI Guitar Rig LE	AudioFuse Creative Suite
Purpose	Mobile recording, Live streaming, podcasts	Professional studio, surround	Home recording, mobile recording	Studio recording, live recording, complex synth setups, surround
Current price	625 Euro	3949 Euro	134 Euro	1149 Euro
Verdict	The digital Synergy Core signal processor saves processing power when calculating effects. The ability to connect two computers and smartphones increases flexibility. Another advantage is the 64-bit Acoustically Focused Clocking (AFC) technology. A true all-rounder for all applications with a limited number of channels.	As a 9.1.6 Atmos audio interface, this flagship's strengths lie in surround production as well as in more complex productions with up to eight channels. Another cool feature is that up to eight different monitor setups can be saved with the Apogee Control 2 software.	Perfect for beginners who don't need more than two channels, or for mobile applications. Reduced to the essentials - and all at an attractive price.	Whether for drum recordings, live recordings of entire bands, complex synth setups, or surround - this interface is a true all-rounder for all applications where many signals converge - both on the input and output sides. The device also scores points with its reamp function, low-latency DSP mixer, and six direct access buttons.
Manufacturer website	www.antelopeaudio.com	www.apogeedigital.com	www.arturia.com	www.arturia.com
Buy here (QR code)				

Arturia AudioFuse Studio 	Audient iD48 	Avid MBOX Studio 	Behringer UMC1820 	Behringer U-Phoria UMC22 
2020	2025	2022	2016	2013
24 Bit, 192kHz	24 Bit, 96kHz	24 Bit, 192kHz	24 Bit, 96kHz	16 Bit, 48kHz
4x XLR/jack, 4 jack line inputs, phono input cinch, 2 ADAT in /out for 8 channels, S/PDIF coaxial in-/output	8x XLR/jack, 2 discrete JFET instrument inputs, 8 switchable balanced inserts	4x XLR/jack, 4x jack line, 8x ADAT or 2x S/PDIF	8x XLR/jack	1x XLR/jack, 1x jack line
4x line out, 2 aux out	4x monitor out (main and alt)	4x monitor, 2x line, 8x ADAT/2x S/PDIF, Bluetooth	10x line out	2x line out
USB-C	USB-C	USB-C	USB 2.0	USB 2.0
ADAT, S/PDIF, Wordclock, 3x USB-Hub	ADAT, S/PDIF, Wordclock	Re-amping output, Bluetooth, effect loop	ADAT, S/PDIF, MIDI	none
2	2	2	2	1
4	8	4	8	1
No	No	No	No	No
AudioFuse Creative Suite	DSP mixer software	Pro-Tools	none	none
Studio recording	Studio recording	Studio recording, home recording, mobile recording	Studio recording, surround	Home recording
889 Euro	899 Euro	695 Euro	179 Euro	39 Euro
AudioFuse Studio offers a total of 18 inputs and 20 outputs in a compact package, making it ideal for professional studio applications. The integrated talkback microphone, Bluetooth interface for monitors, low latency, and streamlined design are particularly noteworthy.	With 32-bit ESS converters, eight mic preamps, two JFET instrument inputs, and ADAT expansion, the iD48 is an excellent interface for anyone looking to create larger recordings without sacrificing intuitive operation. The iD Mixer software provides low-latency direct monitoring, allowing up to four individual headphone mixes to be created.	Luxurious features in a compact format – a no-brainer for anyone looking for professional-level home recording. Especially since Pro Tools is included and reamping is also possible.	If you don't have a large budget but don't want to accept any limitations, Behringer is the perfect choice. The eight MIDAS preamps sound surprisingly high-quality for the price, and the number of channels allows for more complex recordings. Even surround is possible with the ten outputs. Furthermore, the interface is expandable via ADAT and S/PDIF.	If you're looking for an affordable entry-level interface or a mobile backup that can record up to two channels, the U-Phoria UM2 is a good choice – the price is simply unbeatable. Versions with more channels are also available.
www.arturia.com	www.audient.com	www.avid.com	www.behringer.com	www.behringer.com
				

Manufacturer Model	Bitwig Connect 4/12 	Blackstar Polar 2 	Focusrite Scarlett 2i2 4th Gen 	Focusrite Scarlett 18i20 4th Gen
Year of release	2025	2024	2023	2024
Max. resolution	24 Bit, 192kHz	24 Bit, 192kHz	24 Bit, 192kHz	24 Bit, 192kHz
Inputs	1x XLR/jack, 1x line instrument, 2x jack line, 2x CV	2x XLR/jack	2x XLR, 2x jack line	8x XLR/jack, 2x ADAT, 2x S/PDIF
Outputs	6x line out, 4x CV	2x line out	2x line out	10x line- out
Type of connection	USB-C	USB-C	USB-C	USB-C
Additional connections	CV, MIDI	none	none	ADAT, S/PDIF, Wordclock
Headphone outputs	2	1	1	2
Microphone preamps	1	2	2	8
Bus-powered	Yes	Yes	Yes	No
Software	Bitwig Studio Essentials	Software package with Blackstar St. James plugin, Ableton Live Lite and much more.	Hitmaker Expansion software bundle (Ableton Live Lite, Avid Complete Plugin Bundle, etc.)	Hitmaker bundle (Focusrite Red 2 & 3 Plug-in Suite, Antares Auto-Tune Access, Softube Marshall Silver Jubilee 2555, NI Massive u.v.m.)
Purpose	Home recording, modular synth	Guitar recording, home recording, mobile recording	Home recording, podcasts	Studio recording, surround
Current price	489 Euro	179 Euro	179 Euro	699 Euro
Verdict	Thanks to its Bitweg integration, it's particularly well-suited for home recording studios running the Bitweg DAW. With two DC-coupled inputs and four outputs, it's also ideal for controlling modular synthesizers and other CV-capable hardware.	A clear and simple entry-level interface from guitar amp manufacturer Blackstar that reliably performs its tasks and feels robust. It's not just for guitarists!	A solid audio interface for smaller applications, already in its fourth generation and often at the top of the sales list in stores. For an affordable price, you get a high-quality 2-channel interface that, thanks to its compact size, is also perfect for on-the-go use.	The „big brother“ of the Scarlett 2i2 comes in a rack format and is designed more for professional studio applications. It offers a total of 18 physical inputs and outputs – with loopback, even 20 x 24 can be used simultaneously. This allows for larger recordings and surround mixes. Further advantages include the built-in talkback microphone, the switchable Air mode with presence and harmonic drive, as well as the auto-gain and clip-safe functions.
Manufacturer website	www.bitwig.com	www.blackstaramps.com	www.focusrite.com	www.focusrite.com
Buy here (QR code)				

Icon Pro Audio 32Ci	iConnectivity PlayAUDIO1U	IK Multimedia AXE I/O One	Lewitt Connect 2	Lewitt Connect 6
				
2024	2023	2023	2024	2022
24 Bit, 192kHz	24 Bit, 96kHz	24 Bit, 192kHz	24 Bit, 96kHz	24 Bit, 96kHz
2x XLR/jack, 2x jack line	none	1x XLR/jack	1x XLR, 1x jack	2x XLR/jack, 1x stereo aux input
4x monitor out (main & alt)	12x XLR out	2x line out, 1x amp out	2x line out	2x line out
USB-C	USB-C	USB-C	USB-C	USB-C
MIDI, ADAT	MIDI	MIDI	none	none
2	1	1	2	2
2	none	1	1	2
No	Yes	Yes	Yes	Yes
iO Pro virtual Mixer Software	Big Fish Audio Samples & Loops, Ableton Live Lite	ToneX SE, AmpliTube 5 SE, Ableton Live Lite	Steinberg Cubase LE, Steinberg Cubasis LE	ASIO driver & Control Center Software, Steinberg Cubase LE
Home recording, podcasts	Live performance, playbacks	Guitar recording	Music production, podcasts, streaming	Home recording, content creation
480 Euro	1149 Euro	79 Euro	165 Euro	249 Euro
The two premium 32C analog console-quality microphone preamps and the stylish design reminiscent of a monitor controller make the Pro Audio 32Ci an excellent choice for high-quality home recording or podcast applications. Thanks to the ADAT connectors, it can even be expanded to include 12 inputs and 12 outputs.	Thanks to its redundancy feature, this interface is perfectly suited for live use, allowing simultaneous operation on two computers for a crash-proof setup. In the event of a failure on one computer, it automatically switches to the second computer. However, it is not designed for recording.	The AXE I/O One was specifically designed for the needs of guitarists and offers features such as a Z-Tone input for guitar/bass with impedance matching, PURE and JFET input stages, an Amp Out for easy reamping, and two controller inputs for expression pedals or single/double switches. All at an unbeatable price.	The Connect 2 is characterized by its intuitive operation thanks to its touch-based user interface. Features such as onboard DSP, the 1-click compressor and denoiser, autotune, and autogain simplify work and make the clear and innovatively designed interface a state-of-the-art device.	Compared to the Connect 2, the Connect 4 offers a hardware-based DSP for routing, mixing, zero-latency effects (compressor, 4-band EQ, expander, maximizer), and monitoring. Auto Setup automatically selects the best settings for speech, vocals, or instrument recordings, and the Control Center software makes routing all channels, mixing, and audio capturing a breeze. And, of course, the futuristic design is a real eye-catcher.
www.iconproaudio.com	www.icconnectivity.com	www.ikmultimedia.com	www.lewitt-audio.com	www.lewitt-audio.com
				

Manufacturer Model	M-Audio AIR 192 4 	Mackie DLZ Creator XS  	MOTU 828 (2024) 	MOTU Ultralite M2 (& M4/M8) 
Year of release	2019	2024	2024	2019
Max. resolution	24 Bit, 192kHz	24 Bit, 48kHz	24 Bit, 192kHz	24 Bit, 192kHz
Inputs	1x XLR/jack, 1x instrument input	2x XLR/jack, 2 jack line, 1x line (mini jack)	2x XLR/jack, 8x jack line, 8x DC-coupled line, 2x ADAT	2x XLR/jack
Outputs	2x line out	2x line out	10x line out, 2x XLR- main out, 2x ADAT, 2x Aux	2x line out, 2x unbalanced outputs (RCA)
Type of connection	USB 2.0	USB-C	USB-C	USB-C
Additonal connec-tions	none	Bluetooth, Ethernet	ADAT, S/PDIF, MIDI, Wordclock	MIDI
Headphone outputs	1	2	2	1
Microphone preamps	1	2	2	2
Bus-powered	Yes	Yes	No	Yes
Software	Ableton Live Lite, Creative FX Collection, Xpand!2, Mini Grand, Touch Loops, Reval-ver - 2x Amps, 3x Cabs, 3x Mics, 3x Effects, MPC Beats	none	CueMix 5	MOTU Performer Lite, Ableton Live Lite and over 6 GB of loops and samples
Purpose	Home recording	Streaming, podcasts, mobile recording, small live setups	Professional studios, surround	Home recording
Current price	91 Euro	529 Euro	1179 Euro	229 Euro
Verdict	A recommended interface for price-conscious beginners or those who don't need many channels. The comprehensive software package is just as much a plus as the low-noise M-Audio Crystal preamps and the intuitive user interface with generous volume controls. Those who need more inputs should opt for the AIR 192 6.	The interface not only connects to a computer but also enables mobile recordings with up to 12 channels on a MicroSD or USB memory card. It also features five potentiometers, illuminated buttons, a 7" color display, customizable pads, and mixer elements such as a 3-band parametric equalizer, noise gate, de-esser, compressor, atomizer reverb, and Chronotronic delay.	With up to 60 simultaneously usable audio channels (28 inputs and 32 outputs), the 828 is a true flagship and the obvious choice for professional studios. The DSP-controlled digital mixer, the built-in ESS Sabre32 Ultra DAC technology for high dynamic range, and the extremely low latency are further compelling reasons to purchase this versatile rack-mounted device.	With the M2, MOTU targets price-conscious yet quality-oriented home recordists. The M2 is the two-channel version of a USB interface series that impresses with its compact design, high-resolution LCD displays, and astonishingly good sound. Those who need more channels can opt for the larger M4 and M6, which, as their names suggest, offer more inputs.
Manufacturer website	www.m-audio.com	www.mackie.com	www.motu.com	www.motu.com
Buy here (QR code)				

Neumann MT 48 U	PreSonus Quantum HD 8	RME MADiface XT II	Rode Rodecaster Pro II	Solid State Logic SSL 12
				
2024	2024	2024	2022	2022
32 Bit, 192kHz	32 Bit, 192kHz	24 Bit, 192kHz	24 Bit, 48kHz	32 Bit, 192kHz
2x XLR/K left, 2x jack line instrument, 2 ADAT / SPDIF	8x XLR/jack, 2x jack line instrument, 2x ADAT	2x XLR/jack	4x XLR/jack	4x XLR/jack, 2 line Hi-Z instrument inputs, 8x ADAT
2x XLR main out, 2x jack line out, 2x ADAT / SPDIF	10x line out, 2x reamp output	2x line out	2x line out	4x line out
USB-C	USB-C	USB 3.0	USB-C	USB-C
ADAT, S/PDIF, MIDI, AES EBU, Ethernet	ADAT, S/PDIF, ADAT, Word Clock	MADI, AES/EBU, MIDI, Word Clock	Bluetooth, Ethernet	MIDI, ADAT
2	2	1	4	2
2	8	2	4	4
No	No	No	No	Yes
none	12 months of Studio One+, add-ons, and a perpetual license for Studio One Professional	DSP mixer TotalMix FX	none	SSL 360°, Vocalstrip 2 & Drumstrip, Amplitube 5 SE, Melodyne Essential, NI Hybrid Keys & Komplete Start, Live Lite, AAS Session
Professional studios with DANTE, surround and immersive audio	Professional studios, surround	Professional studios	Podcasts, streaming	Professional studios
1799 Euro	862 Euro	2379 Euro	629 Euro	419 Euro
The excellent preamps, integrated DSP for EQ and dynamics processing on every channel, and the option for Dante connectivity make this compact interface an excellent choice, also for professionals.	The Quantum HD8 can handle up to 26 inputs and 30 outputs, making it ideal for professional studio applications. PreSonus MAX-HD technology delivers outstanding sound with gain of up to +75 dB, while the Auto Gain function saves time during level adjustment. Settings can be conveniently adjusted using the Universal Control app.	RME's new sound wonder, the Madiface XT II, promises a phenomenal 394 channels at 192 kHz. To fully utilize these, additional units connected via MADI are required. Without additional hardware, the interface offers „only“ two inputs, yet they deliver outstanding sound. This makes the Madiface XT II ideal as a „hub“ for professional studios.	Whether you're a podcaster, streamer, or musician - this compact all-in-one studio offers everything you need to record four signals simultaneously and provide four people with headphone mixes. It features eight programmable SMART pads, six haptic faders, and three virtual faders, the ability to connect two computers or mobile devices simultaneously via two USB-C ports, and 4 GB of internal memory for recordings.	The SSL 12 offers premium preamp technology in a compact interface that's ideal for home recording. Expandability to up to 12 inputs and 8 outputs also makes it suitable for larger sessions. The SSL 360° software is particularly valuable, offering complete control over monitoring functions, independent headphone mixes, and much more.
www.neumann.com	www.presonus.com	www.rme-audio.de	www.ode.com	www.solidstatelogic.com
				

Manufacturer Model	Solid State Logic 2+ MKII 	Steinberg UR22C 	Swissonic Audio 2 	Tascam Studio Bridge 
Year of release	2024	2019	2022	2024
Max. resolution	32 Bit, 192kHz	32 Bit, 192kHz	24 Bit, 192 Khz	24 Bit, 48kHz
Inputs	2x XLR/jack	2x XLR/jack	2x XLR/jack	24x Line (each via three Sub-D25 connectors)
Outputs	4x line out	2x line out	2x line out	24x line out, metronome out
Type of connection	USB-C	USB 3.0	USB 2.0	USB-B
Additional connections	MIDI	MIDI	keine	MIDI
Headphone outputs	2	1	1	1
Microphone preamps	2	2	2	none
Bus-powered	Yes	Optional	Yes	No
Software	Live Lite, SSL Vocalstrip & Drumstrip, AAS Session, Mixbus 10, BFD Player + Pop Essentials LE, AmpliTube 5 SE, NI Hybrid Keys & Komplete Start, Melodyne Ess.	Cubase AI, Cubasis LE DAW-App für iPad (Download versions), Steinberg Plus	Steinberg Cubase LE, IK Multimedia Amplitube 5 SE, iZotope Ozone 11 Elements	none
Purpose	Home recording	Home recording	Home recording	Analog recording, recordings without DAW
Current price	299 Euro	169 Euro	59 Euro	985 Euro
Verdict	If you're happy with two inputs instead of four, this is an even more affordable option than the SSL 12 for bringing high-quality SSL technology into your home studio. The Legacy „4K“ switch, which provides rich, rich sound coloration similar to the SSL 4000 series, and the good tactile feel are particularly cool. If you're also happy with two outputs instead of four, the SSL 2 MKII is an even more affordable option.	A good choice for beginners. Not only its optimal integration with Cubase, but also its iPad connectivity make this interface particularly attractive. Other advantages include the two Class-A D-PRE microphone preamps, the Monitor Mix control that adjusts the balance between input and DAW, and the zero-latency DSP-supported monitoring with REV-X reverb, channel strip, and Guitar Amp Classics. Advanced users will appreciate the larger UR24C and UR44C versions.	An affordable and straightforward entry-level audio interface from Thomann's own brand, it offers sufficient features for initial recording and simple streaming tasks, such as direct monitoring and loopback recording. An even cheaper version, the Audio 1, offers only one input.	This device combines a 24-track audio recorder, capable of storing recordings of up to 512 GB on SD cards, and a USB interface. It's a digital copy of a tape machine and ideal for use with analog consoles, allowing you to feed tracks back to an analog mixer for summing. Other features include a virtual meter bridge, punch recording with up to 10 tracks simultaneously, auto-monitoring, and track swap functionality.
Manufacturer website	www.solidstatelogic.com	www.steinberg.net	www.thomann.de	www.tascam.com
Buy here (QR code)				

TC-Helicon GO XLR	Universal Audio Volt 476P	Universal Audio Apollo Twin X	Xvive More You	Zoom AMS-44
				
2019	2022	2024	2025	2022
24 Bit, 48kHz	24 Bit, 192 Khz	24 Bit, 192 Khz	24 Bit, 96kHz	24 Bit, 96kHz
1x XLR, 1x Mic-In (mini jack), 1x stereo line	4x XLR/jack	2x XLR/jack, Hi-Z instrument input jack	2x XLR/jack, 8 ADAT	4x XLR/jack
1x stereo line out	4x line out, 2x monitor out	2x line out, 2x monitor	2x line out	2x line out
USB 2.0	USB-C	Thunderbolt 3	USB-C	USB
S/PDIF output for Xbox or Playstation	MIDI	ADAT, S/PDIF	ADAT, MIDI	none
1	2	1	2	4
1	4	2	2	2
No	Yes	No	Yes	Yes
GoXLR App	LUNA DAW, Live Lite, Softube Marshall Plexi Classic Amp Softube Time & Tone Bundle, Melodyne Essential and more	LUNA Recording System and, depending on the version, various UAD plugins	none	none
Streaming, podcasts, gaming	Home recording, studio recording, podcasts	Professional studios, home recording	Studio recording, podcasts, monitoring at rehearsals	Podcasts, home recording, streaming
329 Euro	429 Euro	998 Euro	269 Euro	165 Euro
This colorfully illuminated device is aimed less at musicians than at gamers and podcasters. In addition to the XLR input, there's a microphone mini-jack input and a 3.5 mm mini-jack line output. The „Beep“ button for suppressing rude words and the integrated TC-Helicon vocal effects also appeal to this target audience.	Not only the integrated 76 compressor, which is based on the UA 1176, and the extensive software package with high-quality UAD plugins make this interface interesting, but also the four integrated microphone preamps with Vintage Mic Preamp Mode and the direct monitoring option ensure comfortable working.	This classic Universal Audio interface is available in various versions, differing primarily in their DSP power. The UAD processor offloads the computer by processing the high-quality UAD plug-ins directly within the interface. Thanks to ADAT, the number of inputs can be easily expanded, making the interface suitable for professional applications.	Thanks to its modular expandability for up to eight modules, it's a great choice for those who want to remain flexible or collaborate in a team. As a personal monitoring system, it's also ideal for rehearsals with multiple people.	Its compatibility with iOS and Android, as well as its Direct Monitor and Loopback functions, make the AMS 44 suitable for music production, podcasts, and streaming. In streaming mode, all inputs are combined into a single audio signal and can be processed in streaming software. Battery operation and the USB-C port for power supply ensure mobile use is particularly easy.
www.tc-helicon.com	www.uaudio.com	www.uaudio.com	www.xvive.com	www.zoomcorp.com
				

No frustration in the home studio

Record easily, sound professional

Making music has never been easier – and yet many beginners face a challenge: Which audio interface is the right one for getting started? The selection is vast, but they are often either too expensive or too complicated. Yet there are interfaces that offer exactly what matters: clear sound, versatile connections, and ease of use.

What an audio interface needs to be able to do

A good interface is the heart of every home studio. It connects microphones, instruments, and MIDI devices to the computer. To ensure that the recording not only works technically but also sounds good, a few things are particularly important:

What to look for

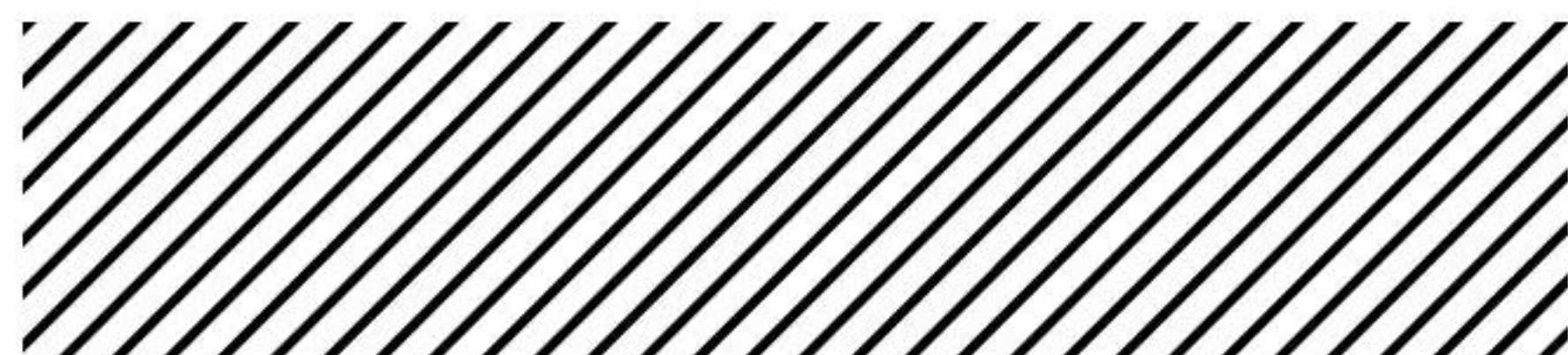
Especially for beginners, it can be frustrating when the technology takes up more time than the music itself. A good interface should therefore be easy to connect and work right away – without complicated configuration or additional accessories.

Many interfaces either require external drivers or complex settings in the DAW. However, there are models that are plug-and-play and come ready to use. It's especially useful if the appropriate software is already included in the package. This includes, for example, a DAW for recording and mixing – ideally with professional effects and editing features.

For beginners, it's also worth paying attention to flexible connections: If you only want to record vocals or guitar, a 2-in/2-out interface is often sufficient. If you're planning larger setups with synthesizers or want to collaborate with others, a 4-in/4-out interface with additional outputs is more practical.

Recommendation: ESI Amber i2 & i4

A good audio interface doesn't have to be expensive or complicated. If you don't want to deal with complex configurations, models like the ESI Amber i2 or i4 can get you started right away. Simply plug in, record, and get creative – without any technical frustration.



Headphone jacks with dedicated volume controls – essential for precise monitoring.

High-quality preamps for microphones – so vocals or speech are recorded clearly and with low noise.

Direct, zero-latency monitoring – so you can hear yourself without delay, without complicated routing settings.

MIDI ports for synthesizers or drum machines.

Instrument inputs for electric guitar or bass and line inputs for synths and drum machines – so you can play signals directly into the interface without the need for additional equipment.

Balanced line outputs for connecting your studio monitors.

The Amber i2 is the ideal entry-level model for home recording. It offers two microphone or instrument inputs, a MIDI duo for integrating hardware synths or drum machines, and direct, zero-latency monitoring – perfect for straightforward recordings. The Amber i4 expands the concept with additional inputs and outputs for synthesizers, drum machines, or a multi-user setup. Thanks to two separate headphone outputs, musicians can also collaborate on a song.

Thanks to the high-quality Class A microphone preamps, vocals, instruments, and synthesizers sound clear, detailed, and low-noise. Both models boast 24-bit/192 kHz audio quality, versatile connectivity options, and a software bundle including Cubasis LE, Wavelab LE, and Bitwig Studio 8-Track. So you can start recording professionally right away. 🎵

Technical specifications

Converter: 24-bit/192 kHz, 115 dB dynamic range

Advanced Direct Monitoring, USB-C port, MIDI Duo

Software: Steinberg Cubasis LE and Wavelab LE, Bitwig Studio 8-Track

Amber i2: Inputs: 2x combo jacks (mic/hi-z)

Amber i2: Outputs: 2x balanced TRS jacks, headphone output with volume control

Amber i4: Inputs: 2x combo jacks (mic/hi-z), 2x line inputs

Amber i4: Outputs: 4x balanced TRS jacks, 2x headphone outputs with separate volume controls

www.esi-audio.de

This is what really matters!

The audio-interface as the studio hub

Whether it's a home studio or a professional setup, the audio interface is the heart of every production. But which features are truly crucial when it comes to recording vocals, instruments, or synthesizers in the highest quality?

Anyone who produces music with real instruments, hardware synths, or microphone recordings knows that the number of inputs and outputs alone says little about the quality of an interface. Much more important are sound, connectivity, well-thought-out signal routing, and how flexible and seamlessly you can work with it.

1 | High-quality preamps

One of the most important factors for a professional sound is the quality of the microphone preamps. They should be as low-noise as possible and offer plenty of headroom for dynamic performances.

2 | Flexibility through a variety of connections

While singer-songwriters often get by with one or two inputs, the situation is different for band recordings or producers who use a lot of synthesizers and outboard equipment. Synthesizers and drum machines require line inputs, guitars and basses benefit from Hi-Z inputs, and external effects devices can only be effectively integrated with sufficient line outputs.

3 | Intelligent recording tools for better recordings

An incorrect level setting can quickly ruin an entire session. Modern interfaces can handle this task automatically. Focusrite's Scarlett 16i16 and 18i16 audio interfaces, for example, detect clipping in real time and automatically set the optimal input level – ideal for spontaneous sessions.

4 | Flexible monitoring & smart workflow

Separate headphone outputs with individual mixes are essential for collaborating with singers or



musicians, while Alt Monitor switching allows for quick comparisons across different speakers. Remote control apps that allow you to manage levels and routing from a smartphone or tablet are particularly useful.

5 | Expandability & future-proof setup

As soon as a new piece of hardware arrives in the studio, you reach the limits of the available inputs. Interfaces with ADAT or S/PDIF connectors allow for easy expansion, allowing the studio to grow with your needs.

Our recommendation: Focusrite Scarlett 16i16 & 18i16 (4th Gen)

The Scarlett 16i16 & 18i16 audio interfaces combine first-class sound quality, versatile connectivity, and smart features in a compact desktop format. The low-noise preamps ensure clear and detailed recording quality, and thanks to the Hi-Z and line inputs, the devices are also ideal for recording guitars, basses, synths, and drum machines. If your studio setup grows, you can easily expand the inputs via ADAT or S/PDIF. The integrated MIDI inputs and outputs also enable seamless connection to external hardware synths, sequencers, or controllers. The Air modes allow for flexible sound customization: Presence boosts the highs, while Harmonic Drive provides warm, analog saturation – ideal for vocals, guitars, and drum overheads. All important

settings can be conveniently managed via the Focusrite Control 2 app on your smartphone or tablet. The new Scarlett models are impressive, versatile audio interfaces with an excellent price-performance ratio. Their high sound quality, wide range of connections, and flexible expandability make them the perfect choice for producers, musicians, and bands – whether for home recording, band recording, or hybrid studio setups. 🎧

Technical specifications

Inputs: 2 microphone/Hi-Z, 6 (16i16) or 8 (18i16) line inputs, MIDI I/O, ADAT & S/PDIF

Outputs: 4 line outputs, 2 headphone outputs, Alt/Monitor switching

Converter: 24-bit/192 kHz, dynamic range 122 dB

Special Features: Auto Gain, Clip Safe, 2 Air modes, bus-powered (16i16)

Plus:

- ▲ Expandable inputs and outputs via ADAT and S/PDIF
- ▲ Two Air modes for flexible sound design
- ▲ Ultra-low-noise preamps with 69 dB gain
- ▲ Auto Gain & Clip Safe for perfect level control
- ▲ Focusrite Control 2 app for mobile control
- ▲ Excellent value for money
- ▲ Comprehensive software bundle

www.focusrite.com

Digital Culture: Changes in the social media landscape

The sky's the limit

Facebook appears to be falling apart - and social media are going through a transition. Despite Facebook's many undeniable shortcomings, its descent has left behind a vacuum: what will follow in its wake? **by Tobias Fischer**

» Bluesky's goal is fragmentation – the exact opposite of what made Twitter what it was. «

Popularity has its downsides. After Donald Trump's triumph in the US election, the social network Bluesky experienced such a huge influx at the end of 2024 that its team of moderators had to pull the plug: „We kinda expected more than a couple days notice before getting blasted with a million new users a day,“ Bluesky sulked on its official account and apologised for the lack of tech support. [1] The complaint was clearly tongue in cheek - but could be taken literally nonetheless. In the

month following Trump's return to power, the number of accounts rose from 20 million to over 25 million. [2] The exodus received an additional boost after Meta announced a change to its content policy, which many artists and labels resented, leaving Facebook in order to migrate to Bluesky or Mastodon. Taking into account Facebook's still vastly higher user numbers, this hardly amounts to much - and yet, the development could be a harbinger of bigger things to come.

One thing's for sure: It's hard to imagine a world without Facebook

Not because the site is that good - even those who profited from the platform for many years would not go as far as to make that claim. But rather because it has been the default hub for most people's online activities for such a long time. Now that Twitter has turned into X and become mostly meaningless for the creative industry, our entire idea of social media is being chal-

Is an endless blue sky the bright future of social media? Photo: Freepik

lenged. For musicians, it can feel like a free fall. Although Meta's products, which, besides Facebook, also include Instagram and threads, had seemed useless for a long time now, there was always a last glimmer of hope that the next post or paid ad might generate a little attention, however small and insignificant. That hope may now finally have died.

At first glance, Bluesky simply looks like a more elegant, softer Facebook relaunch without the annoying sponsored posts and adverts. But the idea that the site could swallow up all the Facebook emigrants, eradicate the original's multifold issues and turn into the Internet's new key node seems unrealistic. Admittedly, Bluesky has, in recent months, grown considerably: „The value of social networks to the user is based on the number of people there. Networks have to reach a critical mass of users before they actually manage to take off," says digital culture expert Adam Tinworth, „Bluesky is picking up waves of users and the community is pushing it towards a level of sustainability." [3] Currently, its growth even exceeds that of twitter in its infancy, even if it does not yet come close to the numbers of that site's explosive phase. Nevertheless, it is doubtful that Bluesky will indeed mature into the ultimate media channel.

The main reason is that the decision in favour of Bluesky is above all a decision against Facebook.

It all goes back to that aforementioned policy change. In a radical paradigm shift, Mark Zuckerberg had announced that content would no longer be self-regulated moving forward, but instead be regulated using the same Community Notes that had already caused a stir on Twitter. Here, the community moderates itself by adding notes to potentially offensive, hurtful or factually incorrect posts, explaining why this content should not be trusted or shared. In the USA in particular, conservative forces have argued that this approach supports freedom of speech, as it makes it easier to at least debate unpopular opinions that would be labelled as absurd or unacceptable from the outset by the liberal media. From the point of view of critics, however, it is precisely this laissez-faire approach that helps extreme positions and false reports to spread virally - „Racism is not protected by freedom of expression", as Patrick Gensing from Hamburg football club St. Pauli which recently made the fully-fledged transition from FB to Bluesky, sees it. [4] The fact that Zuckerberg announced the new policy just shortly after Trump's election to the White House and reinforced its weight by si-

multaneously eliminating protective measures against marginalised groups at Meta did not exactly endear his decision to many artists.

However, the issue is by no means as black and white as it may initially seem. Various studies have demonstrated that Community Notes are not a bad principle per se. On the contrary, in practice they have even proven to be remarkably effective in stopping the spread of offensive content. [5] The case of twitter is rather atypical in this regard. It was not the introduction of Community Notes as such which triggered the site's downfall, but a whole package of far more egregious changes which combined to favour extremist positions over moderate ones. The notion that a community, if presented with the right set of basic regulations, could be capable of policing itself is certainly no more unrealistic than the idea that a centralised system of checks ensures optimal protection. It is significant in this regard that left-wing journalist and founder of independent news agency Young Turks, Cenk Yuger, even welcomed Meta's move. To him, Community Notes are the final and much-needed nail in the coffin of precisely those traditional media that, he claims, have so often distorted the truth in recent decades. [6]

Bluesky, meanwhile, works with its own, idiosyncratic system which it calls „composable moderation." Essentially, users can tag individual posts or selected user accounts as offensive or undesired. With just a few clicks, they can now completely exclude content labelled in this way from their feed. This means that users only see and interact with what they want and avoid external interference, paid posts and adverts (which, according to management, will remain impossible). This sounds like a much „cleaner" experience, which according to most people who have gathered experience on the site, it is indeed. At the same time, it's also a much less inspiring and stimulating one, as journalist Katherine Alejandra Cross finds: „If Bluesky's composable moderation works, and if it truly becomes the open protocol it promises, the entire point is that there won't be one boulevard, but something closer to Melbourne's famous laneways. Distinctive, narrower, a little wilder, but a lot smaller and broken up all over the internet's vast city. (...) The goal is fragmentation, the very opposite of what made Twitter what it was." [7].

Personalised networks look likely to become the model of the future.

Some users will leave Facebook but stay on Instagram. Others will leave Instagram but stay

on tumblr. The majority are likely to remain loyal to Facebook, at least for the time being. The past, which is paved with scandals and waves of dissatisfaction, has proven that switching to a new network is a big step and old habits die hard. Among musicians in particular, dissatisfaction with Meta's algorithm has long been a smouldering bone of contention, and the policy change was just the straw that broke the camel's back. Less committed users may not feel similarly triggered.

Overall, however, the selection of extremely specialised platforms will continue to increase, if only because the big tech companies seem incapable or unwilling to learn from their mistakes. When it, for example, emerged that Instagram was using artworks posted by its users to train AI, artists were outraged. Meta, however, refused to bow down and a significant number of painters, designers and graphic artists migrated to more ethical alternatives such as Cara. [8] In other areas, LinkedIn and Xing have long established themselves as better networks for business contacts and there are now even social networks aimed exclusively at Latina women (Amigahood). It is precisely this fragmentation that will in all probability become the defining feature of the post-Facebook reality - and it puts an end to the dream of being able to reach the whole world through a single site. This sounds a little tragic at first, but it doesn't necessarily have to be. After all, the key problem with the architecture of Facebook and Twitter was precisely that feeds quickly became unmanageable, attention dissolved and discussions became more hostile and anonymous. In a way, it is quite a relief to see one's circle of friends reduced to genuine acquaintances, conversations once again focussed on honest exchanges, collaboration and cooperation coming before marketing and self-promotion. It may not change the world immediately and in the long term, these small enclaves may end up feeling a little isolated. But as a first step towards a better future it could well be healing.

We should probably award the end or non-end of Facebook neither too much nor too little attention. The real question seems to be: Where is your audience headed? The answer to that question already holds the real key to how you should position yourself in the future. As part of these considerations, one of the Internet's oldest components could well stage a sensational comeback: Your own homepage. In many ways, it suddenly seems like the ideal way to reach your potential audience: Directly, without moderation and with precisely the content that you personally believe will provide the best experience. ❖

[3] <https://news.sky.com/story/the-x-exodus-could-bluesky-spike-spark-end-of-elon-musks-social-media-platform-13254722>; [4] <https://www.bbc.com/news/articles/cqx9e0y17ww0>

[5] <https://www.aljazeera.com/news/2025/1/10/meta-facebook-to-drop-fact-checkers-what-does-this-mean-for-social-media>

[6] <https://x.com/cenkuygur/status/1876840123129602561>; [7] <https://www.wired.com/story/bluesky-twitter-social-media/>

[8] <https://www.washingtonpost.com/technology/2024/06/06/instagram-meta-ai-training-cara/>



» **Techno was not just another music genre - it was a statement, an attitude, a way of life. «**

Interview with Sven Väth

Dancing is diving in

For Sven Väth, DJing was never just a career. It was his life and he lived it to the fullest. In a spellbinding coffee table book – aptly in the format of a 12inch vinyl record, weighing in at 3.5 kilos and clocking in at 350 pages filled with stories, and incredible photography – he now revisits not just his own memories, but the explosive growth of electronic dance music as a whole. **by Tobias Fischer**

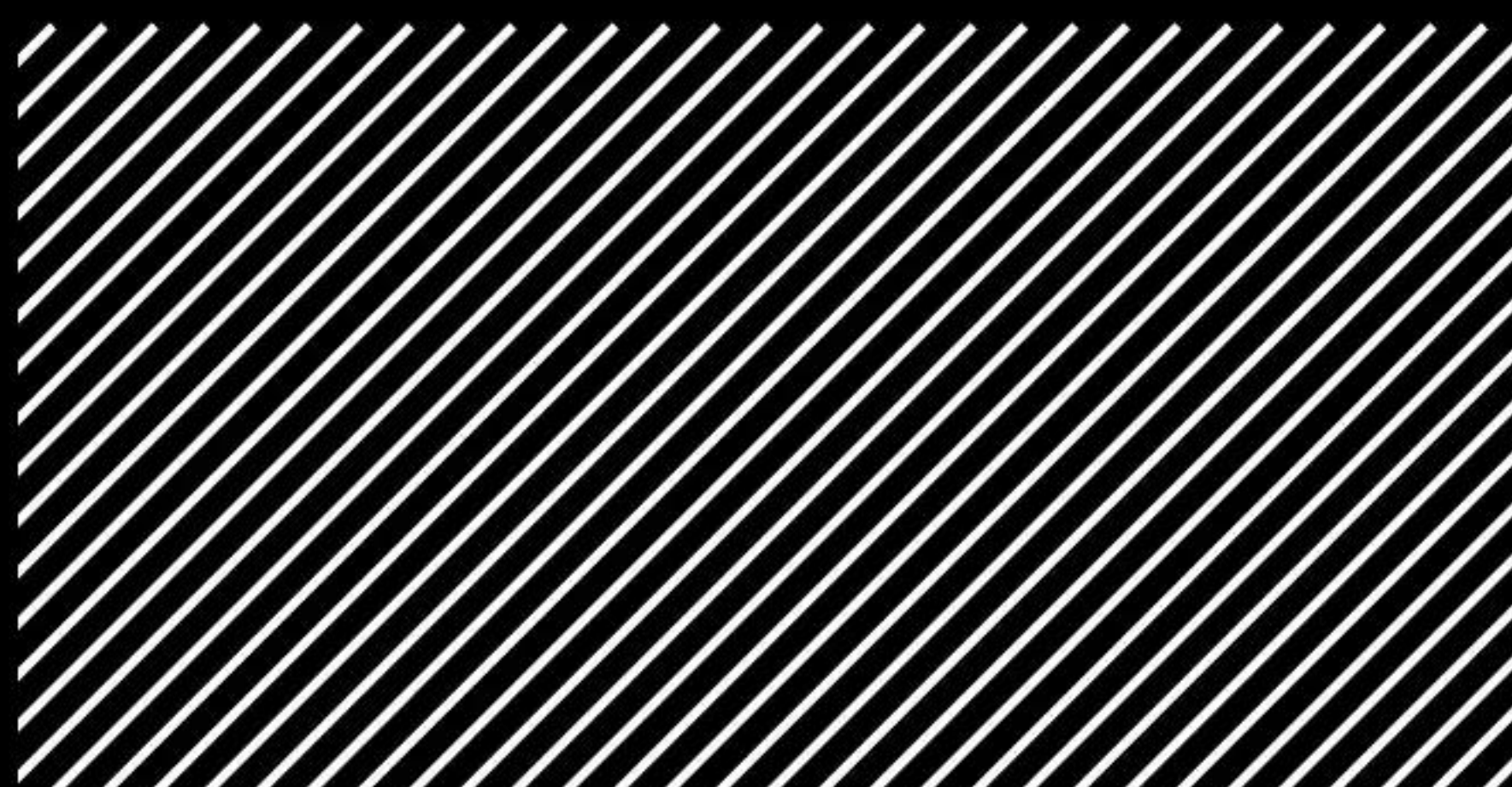
Beat / In which way has dance culture changed since your time at the Omen, or, later, Ibiza?

Sven Väth / The buzz during those Ibiza After Hours was simply brilliant, people really thirsted for it. You were constantly being asked: 'So where's the After, when's the After?' It's no longer possible in that shape and form as the club owners fear it will cannibalize their sales and will possibly therefore refuse to work with you. Not to forget, there are no longer any locations. The cops are pretty

strict now. And since the pandemic it is also of course the case that an awful lot takes place only in private. Private, secret villa parties, well they've started to spread in recent years. Let me put it this way: There were the one or other patron who dug deep into their pockets and even paid the DJs for an After Hour, which I found kind of strange. But the idea that you could kind of play the guerilla and pop up at a beach club and say, 'Hey, let me use the turntables, we'll party here for a couple of

hours! That's no longer possible, sadly. And it's a pity because that was a really important part of that culture and scene. Today, it's all very commercial and professionalized.

Beat / A friend of mine recorded every single one of your Clubnight mixes on cassette—those tapes became part of the soundtrack of our lives. What do you think made this music, and the club experience at that time, so incredibly powerful?



Sven V  th / Because it was real. Because it came from a deep necessity. Techno was not just another music genre—it was a statement, an attitude, a way of life. In the late '80s and early '90s, clubs were sanctuaries, laboratories for new ideas, collective escape machines. And Omen was more than a club—it was a myth, a ritual, a constantly evolving organism. The energy there was raw, unfiltered, uncompromising. It was a catalyst for creative energy, a meeting point for musicians, artists, and visionaries. The focus was not just on partying, but also on experiencing and defining a new cultural movement. Those who experienced it carry that vibe with them forever.

Beat / *How much of the meaning of Techno and House is revealed not just by listening but by dancing?*

Sven V  th / Techno and House are not just sonic structures; they are energies that move through the body, merging with space. Their true essence is only revealed through movement. Dancing is a primal form of expression, a state where thought and feeling become one. It is both liberation and surrender—to the moment, to the rhythm, to the body. Listening alone is staying on the surface. Dancing is diving in.

Beat / *What about its social relevance?*

Sven V  th / Dance has always been a mirror of cultural and social movements, a place of identity and community. When we dance, we break away from hierarchies, from roles, from constraints—at least for a while. And therein lies the subversive power of this music. The events that took place at the Omen were more than just parties, they were experiences that shifted the bounds of reality and enabled us to immerse ourselves in a different world.

DJs as Visionaries

Beat / *When you started out DJing, what were some of the most important insights you gained?*

Sven V  th / The DJs of that era were more than just music lovers – they were visionaries who placed the sound of yesterday in the context of today, and in the process subconsciously shaped tomorrow. In the beginning, the Dorian Gray club in Frankfurt was my temple. DJs like Bijan Blum, Michael M  nzing, and Ulli Brenner were my mentors. Their art of mixing with their smooth

merges and beat cutting, their manipulation of filters and equalizers opened my eyes to the infinite opportunities music offers.

Beat / *What does it mean to be a „good DJ“?*

Sven V  th / A good DJ understands the room, the people, the flow of the night. It's not just about technique—it's about perception. Knowing when to build tension, when to release. When to swim against the current and when to surrender to it. And you don't improve through repetition alone; you grow by constantly pushing beyond your own limits, by rediscovering, by unlearning. Stagnation is the enemy.

Beat / *Why has DJing remained so inspiring for you after all these years?*

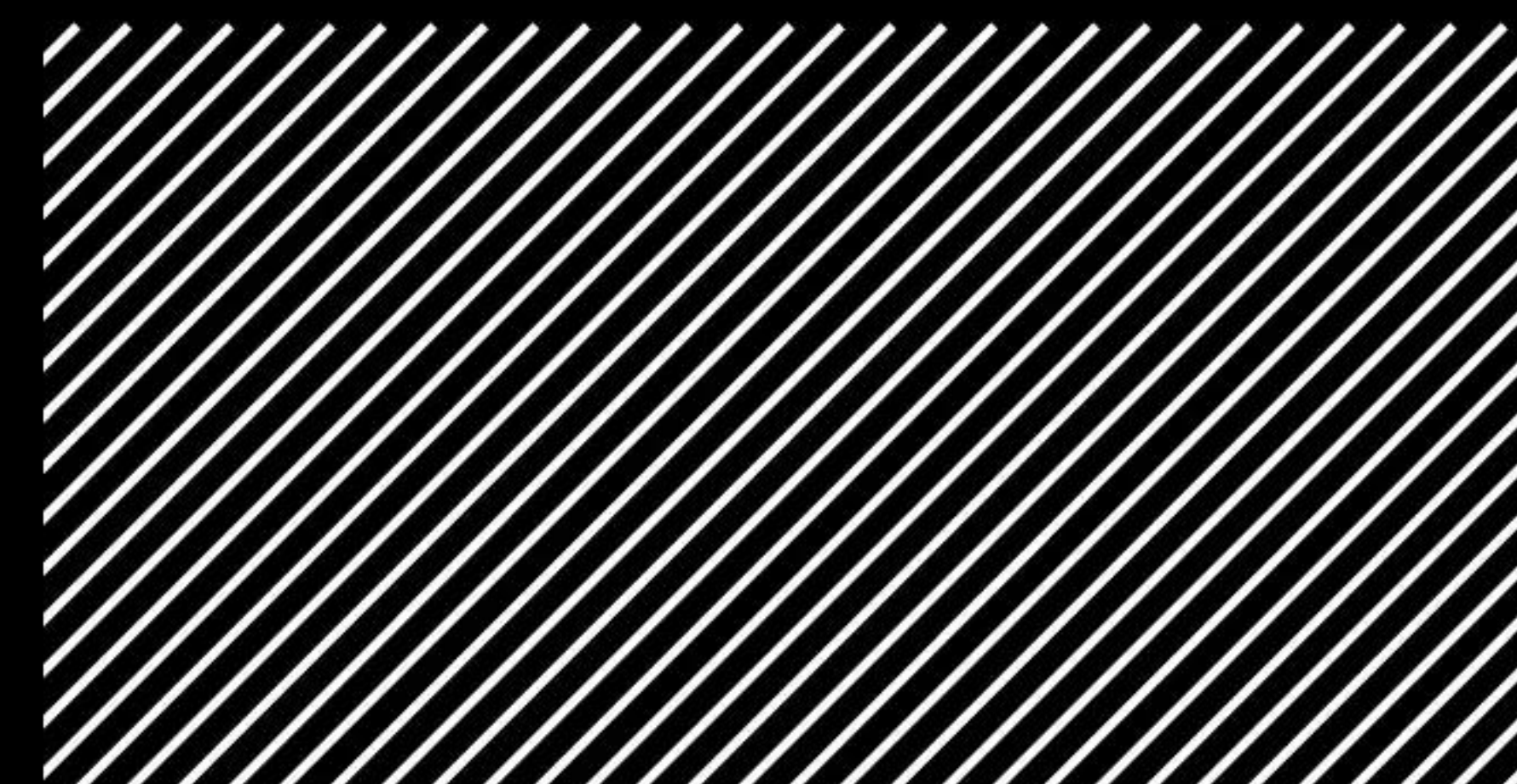
Sven V  th / Because it's a living dialogue. A DJ set is not a fixed composition; it's a fluid structure that takes shape in real time. Every night is different, every audience brings a unique energy, every space has its own acoustics, its own history. DJing is intuition, reaction, anticipation—a constant navigation between control and surrender. The magic lies in the unpredictability. And there is nothing quite like the moment when everything aligns, and the entire room becomes a single pulsating entity.

Beat / *What are your thoughts on back-to-back sets, interactions with live musicians, or other ways to turn DJing into a more collective process?*

Sven V  th / DJing is often a solitary craft. But there are moments when a second energy opens new paths. Back-to-back sets can be a playful, almost telepathic experience—if the chemistry is right. Live interactions, on the other hand, introduce an element of unpredictability, a rawness that makes the moment unique. The magic lies in the right balance between structure and chaos.

Beat / *When you dig for music, what are you looking for? Is it purely about taste, or is it about going beyond taste?*

Sven V  th / Taste is just the starting point. I look for resonance. For music that moves me, that surprises me, that forces me to think differently. It's not about collecting—it's about finding stories that want to be told.



Beat / *How would you describe the interaction with audiences and dancers during a gig—and what does it feel like?*

Sven V  th / A gig is a silent conversation. No words, just signals, waves, impulses. You read the body language, the intensity of movement, the flicker in the eyes. And sometimes, there's this moment when everything syncs—that's the peak.

Beat / *How does the experience change when you remove the audience, as in online mixes?*

Sven V  th / They're more introspective, almost meditative. You play for yourself, for an imagined listener. It's a different kind of journey.

Beat / *There are countless ways to “match” two or more tracks. How do you prefer to do it? What makes two tracks inherently compatible, and what defines a great transition?*

Sven V  th / It's about energy, timbre, the invisible space between the notes. Some tracks blend naturally, others create friction—both can be powerful when used deliberately. A perfect transition is more than just a technical process; it's a narrative moment. It opens a portal from one state to the next.

Beat / *Do you think that a DJing AI will ever be able to open this portal as well?*

Sven V  th / AI can analyze, generate, predict. But it cannot feel. It has no intuition, no irrationality, no magic. It can provide tools, offer inspiration, maybe even open new perspectives. But the essence of DJing is human. It lies in empathy, in spontaneity, in imperfection. And that is something no machine can replace.

This interview is a combination of questions answered directly by Sven via email and a selection of quotes from the book to provide a wider context. They have been edited to create a seamless flow.

Order Sven's vinyl retrospective as well as 4 Decades Behind the Decks A Journey of Music, Magic, and Euphoria directly from Cocoon's bandcamp store:

svenvaeth.bandcamp.com

DISCOGRAPHY

- // Accident in Paradise / 1993
- // The Harlequin, the Robot and the Ballett-Dancer / 1995
- // Fusion / 1998
- // Contact / 2000
- // Fire / 2002
- // Catharsis / 2022

Portrait: DJ Koze

Floating free in space

DJ Koze – whose real name is Stefan Kozalla – is known for exploring musical boundaries and artistically breaking conventions. His new album „Music Can Hear Us“ is an impressive document of this creative freedom. Stylistically, it defies categorization: Dance, World Music, Avant-garde, Chanson and Indie Pop, as well as much more, merge into a unique sound cosmos. But the former Fischmob member is not only surprising musically, but also in the order of the songs and the selection of guest singers. Damon Albarn, Soap&Skin, Ada, Sophia Kennedy, Markus Acher (The Notwist) and Marewrew lend their voices to the pieces – and the creation of the songs also followed its own rules, as DJ Koze revealed to us in an interview. **Interview: Sascha Blach**

Beat / *I would like to start with a question about the album title „Music Can Hear Us“. Normally it is the other way around: we hear the music, not the music hears us. Who is meant by „us“ and what happens to the music when it hears us?*

DJ Koze / Eh / TTo be honest, I can't say much about it because that would spoil the fascinating excursion into the realm of fantasy. I feel that music is a mirror of our emotions. It understands the depths of our consciousness and existence – pain, joy, suffering. Music senses this and reacts to it, unconsciously, through us.

Beat / *So music is a mirror of the soul?*

DJ Koze / Yes, definitely.

Beat / *You describe your new album as a “trip into space and back”. Was that the concept from the beginning or is it a later classification?*

DJ Koze / I only listened to the album in the final order at the end. It affected me so much that this impression became clearer afterwards. Ultimately, my

goal was to curate this hour in such a way that you are introduced to another world. That's not so easy with all the different genres and styles. It's about bringing them together in a sensible order so that a coherent tour emerges.

Beat / *So there was no predetermined artistic framework?*

DJ Koze / No, but ultimately you always carry this framework within yourself. It is constantly changing. I always try to do something new, but I still do the same thing – by creating something new. I could commit to one genre, but I can't. It takes me almost ten years to release an album. This then gives an insight into what I was working on musically during that time.

Beat / *Were there any musical influences that have particularly influenced you recently?*

DJ Koze / Yes, of course, all the time. But that's hard to put into words. I listen to so much different music. And somehow I catalyze it. I feed something in at the top and something comes out at the bottom that probably has nothing to do with it at first. And yet somehow it does. I like Sun Ra, but that doesn't mean that a piece on the record sounds like him. And yet his art influences me in my production technique. For example, a fairly stringent House piece can still somehow contain the vibes of

Sun Ra, even if it's just in a short break or a complete outburst – that's my personal „Sun Ra moment“.

Beat / *Your arrangements often sound complex. Can you describe the process of creating a typical DJ Koze song?*

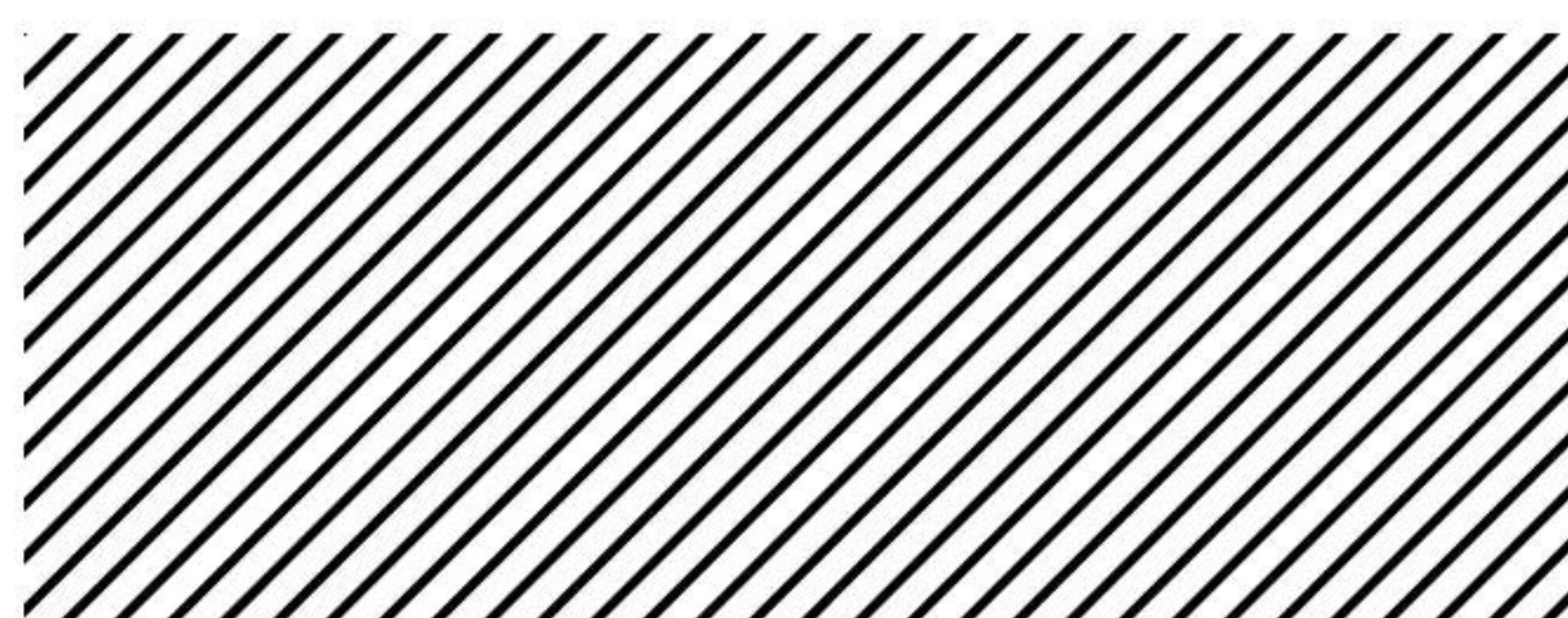
DJ Koze / I don't have a set method. Sometimes a track comes together in one night with three simple ingredients. Those are usually the best songs. Sometimes it takes six to eight weeks to find the perfect balance. There is no routine, except that you just have to start. The freer the better. I like working with vocals that I take completely out of their original context. I find it fascinating when a vocal was recorded for a certain harmony, but I build completely new music around it. That's a reverse engineering of pieces that never existed in the original.

Beat / *Are you talking about remixes or your own tracks?*

DJ Koze / I mean the production method itself. When an artist sends me vocals and I edit them as I

I like to work with vocals, that I completely remove from their original context. «





just described, I'm basically doing a remix, because there's already music that the artist sang to. But I don't listen to it at all. Or I just listen to it once and then do something completely different. I change the tempo and maybe even the chords. I often start the songs for my albums with vocal sketches that have been sung to a different harmony. Normally singers follow the chord progressions of a song and fill in the gaps left by the music. But suppose you take a bare vocal track from Beyoncé and just put one string note underneath, the big mystery is how she came up with the vocal line. What is she holding on to? I find it exciting to start music like that. That's where the most magic can happen.

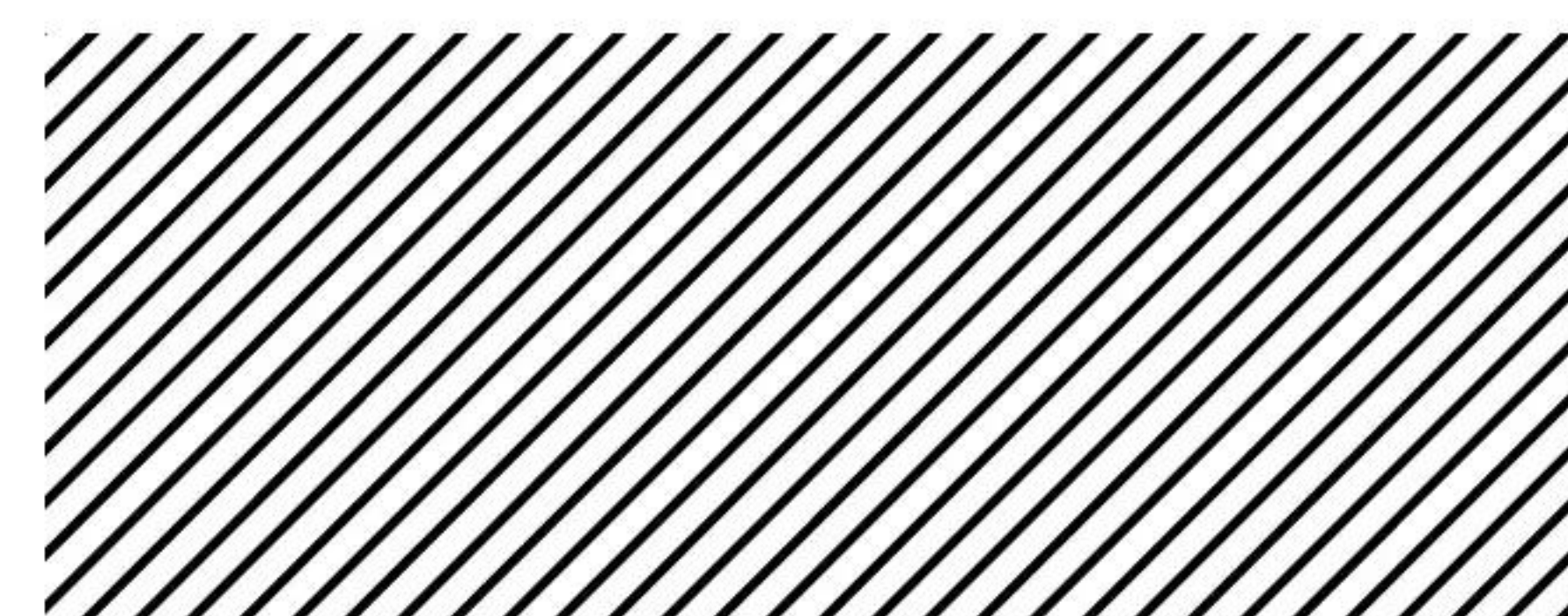
Beat / Does this mean that your guest singers on the album also sent you bare vocal tracks instead of singing on finished instrumentals?

DJ Koze / Not always. It's just one possible approach that I really like. Sometimes I say, send me something. It can be an iPhone snippet. It will be swapped out at the end anyway, so it doesn't have to be good lyrics. For me it's about being able to work with the voice, to put it in context with music, textures and chords. That's what sets my approach apart from the usual modular principle, where there's the music first and then some singer comes in. I feel like even if you do things backwards you get closer to the goal. It's the same with the order of the songs. There's often a predestined order that you imagine. And if you ask yourself whether the opposite works, you're sometimes surprised. On the current album, for example, I start with the outro, which was actually intended for the end. But I thought to myself, I don't want to go all out and put the yearning outro

at the end. At the moment, everyone is so overwhelmed with stimuli and used to songs on Spotify only lasting 2:30 minutes and starting straight with the chorus. Every time you skip to a song, you get the full blast straight away. It stresses me out to have to do that too. So I force people to calm down for eight minutes. Like a plumb line on a fishing rod. At first they probably think, shit, what's going on here. But maybe they're grateful because all the banging is actually too much for them anyway. Then a feeling of slowness spreads. There's nothing to miss here. That anchors us in so we can slowly set off. And I hope there are people who appreciate that, because the other way is getting a bit worn out.

Beat / Your album seems very brave and full of artistic freedom in general. Does marketability not play a role for you?

DJ Koze / I am rarely satisfied with a track. But when I am satisfied, it is usually with tracks where I am not entirely sure which genre I can assign them to. With pieces like "Die Gondel" I don't even know where they belong – that is exactly what I like. That is a good sign for me, because I am actually looking for exactly the kind of music that overwhelms my brain. There are hardly any combinations that have not already been tried out. At the same time, however, I also ask myself whether that is precisely the problem, because "the road less travelled" is that for a good reason. Perhaps this kind of music is actually irrelevant? So I cannot completely escape from considering listening habits, especially when it comes to club music. It also has a lot to do with mathematics. 16 or 32 bars, breaks, how long do elements run until the hi-hat comes along, etc. It is both mathematics and feeling. But ultimately the most important thing is that I am proud of a piece. Rick Rubin once said: The best songs are those that I want to play to friends at the end of the day and smile mischievously. And not songs where you think you can somehow get away with it because objectively everything was done right. Being really proud is



something else. But on the other hand, that doesn't mean that a song automatically resonates with the world out there.

Beat / „Music Can Hear Us“ contains many exotic musical elements, you could call them World Music influences. Where do these recordings come from?

DJ Koze / I use samples, play some things myself or have musicians play parts. It's a big collage of many ingredients and sources. It's good when you can't say exactly whether a sound is electronic or acoustic. When you think something is mechanical, something organic suddenly appears and vice versa. I like it when you can't be sure and it stays exciting. That usually happens with a combination of everything.

Beat / Were there any particular instruments or synthesizers that particularly influenced the album?

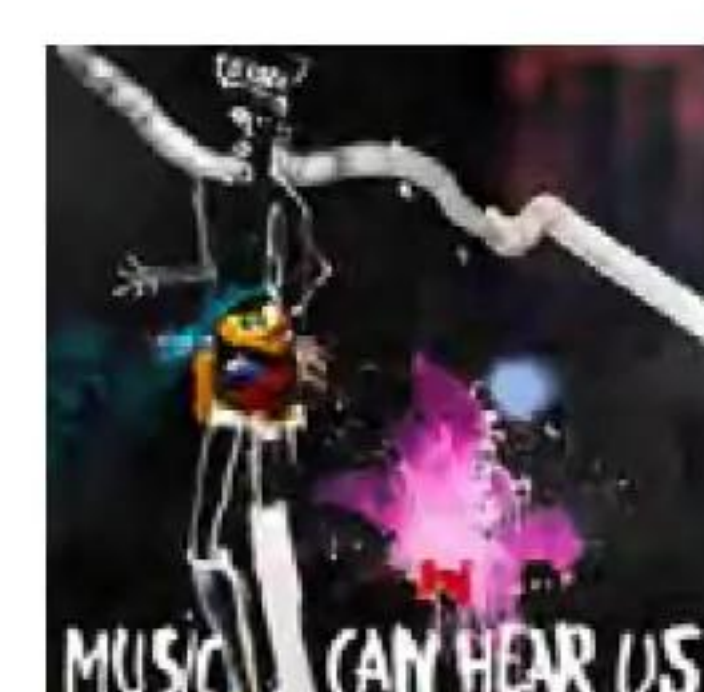
DJ Koze / Ableton Live is my main tool - not just as a sequencer, but as a creative tool. It's sensational for that. I use it not just for linear sequencing and block-moving, but as an instrument. I work a lot with random elements to surprise myself. I prepare various tonally consistent jams, let them run and mix in and out spontaneously. This is how basic ideas emerge without me having consciously programmed them beforehand.

Beat / Are you also planning a live performance of the new tracks?

DJ Koze / No. I haven't found a way to do it in a sensible way yet. I'm not a big fan of playing an album with a band. The appeal of electronic albums for me is that the producer has spent days or weeks tinkering with a snare sound and that everything comes together in a great sound. That everything blends together homogeneously, that it's somehow mysterious. When a drummer plays his ghost notes over it live, what I found great about the electronic version is lost. It's just a song in a live version. Apart from that, I wouldn't be able to stand the social aspect of being with a band. I'd rather be alone in bed with my laptop on my lap.

Beat / Nice final thought. Thanks! ❖❖

www.pamparecords.com



„Music Can Hear Us“ was released on Pampa Records.





BEAT Community: Show Us Your Studio!

Tobias Philippi

It's always refreshing to see how others set up and work in their studios. After our call on Facebook, you nearly overwhelmed us, and that's a good thing. So it quickly became clear: we're turning it into a series to inspire and share with everyone. This month featuring Tobias Philippi. **by Marco Scherer**

Beat / Hi Tobias, let's get straight to it: Why did you set up and design your studio this way?

Tobias / I've been producing music since I was 15 and always wanted to have a dedicated space for it. What was once just a desk with a laptop has evolved over time into a studio in a former laundry cellar.

Beat / What advice do you have for other readers on what to consider when building a studio or purchasing equipment?

Tobias / First, focus on the essentials and figure out what's really important to you. I built almost everything in my studio myself, from diffusers to absorbers to the desk. This can save a lot of money.

Beat / Do you produce in your studio as a hobby or do you make a living from it?

Tobias / Between the ages of 18 and 25, I earned money through DJ gigs in clubs like Tube St. Wendel or Silodom in Saarbrücken and at weddings. I also took on some recording and mastering of tracks. Today, I only produce for myself, as I've taken a different career path. I work as a motorhome salesman and real estate agent in my own company, TP Immobilien.

Beat / How did you acquire the skills for studio and music production?

Tobias / I learned almost everything through YouTube, workshops, and specialist magazines. Under my desk in the studio, there are boxes full of your magazines – they really helped me!

Beat / Which piece of your studio could you never do without?

Tobias / Actually, everything, because I've selected everything to perfectly suit my needs.





Beat / Where can we learn more about you and your music?

Tobias / Currently, I don't have any releases online. In recent years, I've only produced for myself or jammed in the studio. Occasionally, I work on a few tracks with one of my best friends, David. I produce various music styles, and maybe there will be an opportunity to release something again in the future – possibly through an exciting collaboration.

Beat / How do you stay informed about new equipment for your studio?

Tobias / Mainly through YouTube, specialist magazines, and social media. I also used to attend trade shows like Prolight & Sound more often.

Beat / What challenges did you face when setting up the studio?

Tobias / Since the room is a small cellar, the

acoustics were not ideal. One wall is made of quarry stone, which I had to cover with lime plaster so it could breathe. Despite the challenges, I think I've solved the acoustics well for a hobby studio with self-made materials.

Beat / How did you acoustically optimize the room and what difficulties were there?

Tobias / I had problems with too much bass, which is why I installed thick bass traps in the corners behind the desk. Smaller bass traps are installed in the rear right and left. To save headroom, I glued mineral panels directly to the ceiling. It's not perfect, but I made the best of it.

Beat / What kind of music do you produce most often?

Lennard / Mainly Techno and Drum & Bass, but occasionally also a Hip-Hop track.

Beat / Do you have any planned releases at the moment?

Tobias / Not at the moment, as I haven't focused on that in recent years. In the past, it was important for me to play my own productions in clubs to see directly how they were received by the audience.

Beat / What's still missing in your studio?

Tobias / A Clavia Nord Stage 3 – that's been on my wish list for a long time. However, the equipment that has accumulated over the years has already cost a small fortune. Nevertheless, the red keyboard must find its place in the studio eventually – there's still a bit of space left for it.

www.youtube.com/@djnocrime



More info:

Info at: www.tracktion.com

License & password: www.serialcenter.de

Highlight: Dan Dean Bass Collection

1 Plug-in, 6 iconic basses

Fender Precision and Fender Jazz Bass, Washburn Fretless and Alembic Spoiler - these instruments are not only legendary, but represent distinctive sounds that have shaped countless hits. Our highlight from Tracktion brings six of these exquisite instruments from Dan Dean's collection directly into your studio. Whether it's Rock, Pop, Soul, Funk, or Disco - with this plug-in, you will find the perfect bass sound within seconds! **by Mario Schumacher**

Your bass, your sound

On the main page of the Dan Dean Essential Bass Collection, you can adjust the most important sound parameters of your bass sound - entirely according to your preferences.

Effects Galore!

On the effects side, you will find a four-band equalizer as well as four effect slots. You can choose from **Distortion, Chorus, Phaser, Compressor, Filter, Delay** and three different **Reverb** types to give your sound character and depth.

Pitch, Dynamics & Expression

Here, you can adjust the Tuning of the virtual bass, Pitch Bend intensity, and Volume envelope. Additionally, you can determine how much the Strike Force affects the volume (**Velocity**) and how loud the **Release Noises** should be.



Amplifier diversity

Are you into vintage bass sounds or modern punch? The plug-in offers seven **Amplifier** types that shape your sound. Or you can turn off the amplifier and use your own amp simulation. With **FX Level**, you determine the overall effect amount.

Vibrant playing

Fancy smooth slides and organic transitions? With **Glide** and the **Legato Mode**, you can play smooth basslines like on a real instrument.

REGISTRATION

& INSTALLATION

Registration for the Dan Dean Essential Bass Collection is done at www.serialcenter.de. You will receive a redeem code, which you can then redeem at www.tracktion.com/activate. In your Tracktion account, you can then download the Download Manager to install the Dan Dean Essential Bass Collection.



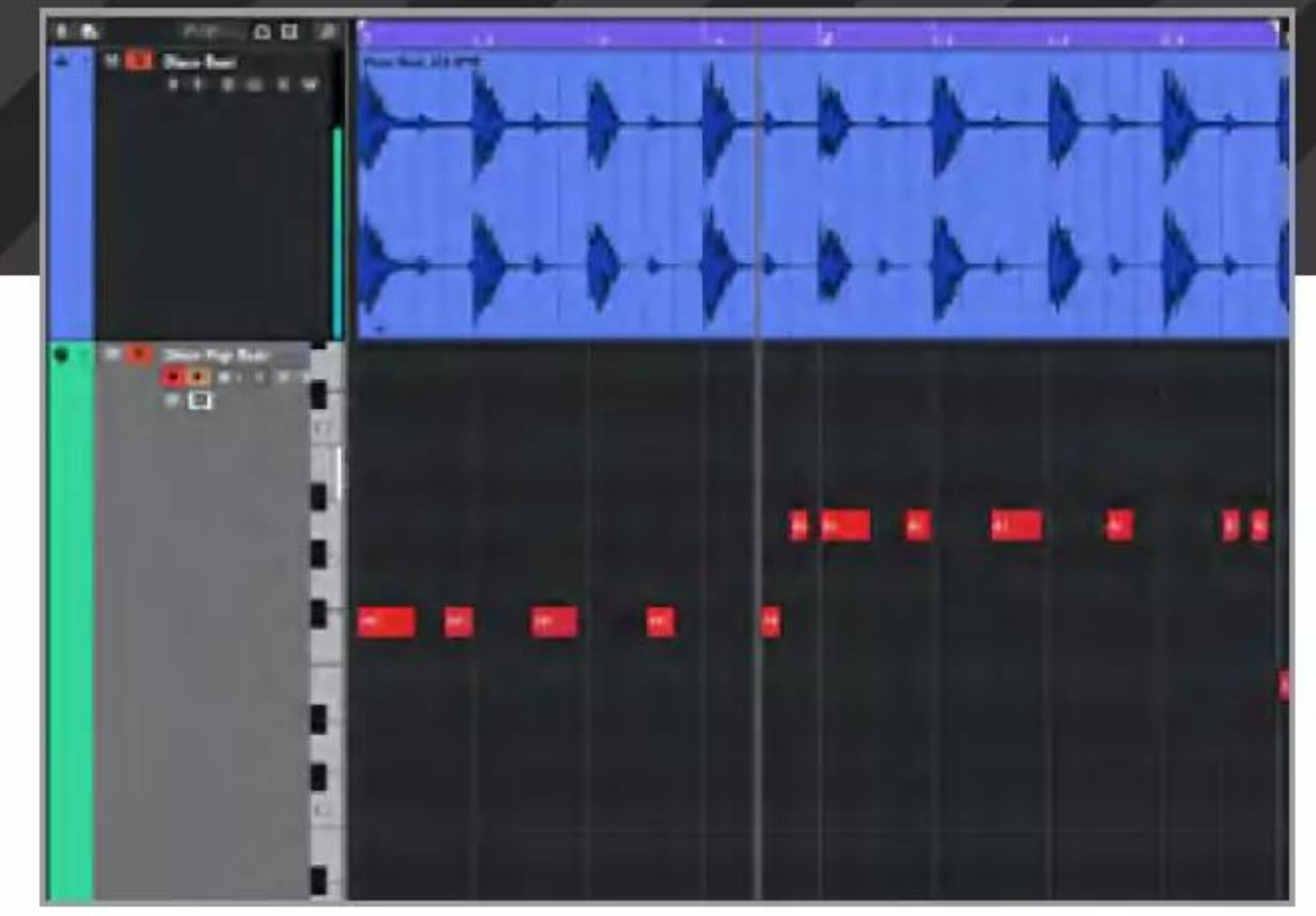
1 Disco Pop Bass

With the Dan Dean Essential Bass Collection, you are perfectly equipped for various styles such as Rock, Pop, Jazz, Funk, or Soul. How about creating a foundation for a cool Disco Pop track with the plug-in right away? The preset **Fender Precision Fing Rvel** is perfect for this, which we select in the browser. ✨



2 More Presence

First, we want to give the iconic bass a more assertive sound. To do this, activate the **Amplifier** and choose the amplifier type **Classic** here. Then, switch to the FX page and load **Distortion (Type: Light)** in Effect Slot 1. The displayed distortion and equalizer settings provide a present and punchy sound. ✨



3 Disco Bassline

Now it's your turn - time for an exciting bassline! As a base, you can load a straightforward **Disco Beat_124 BPM**. Typical for this style is a syncopated rhythm that perfectly complements the steady beat of the drums. First, place accents on the One of each measure and play on the counts between the drums. ✨



4 More Groove

Start with the root notes of your song's chords and introduce variety by adding short transition notes or small embellishments before chord changes. The alternation between longer and shorter notes and different velocity values makes your bassline lively. In Disco Pop, octave jumps are also frequently used. ✨



5 Articulations

For pronounced basslines, you can deliberately use Portamento effects and Pitch Bends to create smooth transitions and expressive slides. With the Modulation Wheel, you can also blend seamlessly to harmonic tones (harmonics). Growling rock basses are also easy to achieve with the Dan Dean Essential Bass Collection. ✨



6 Growling Rock Bass

The **Fender Precision Pick** preset with the subtle amplifier type provides a solid base. For more bite, use distortion - try the **Tube Type** and set the effect as shown in the image. Then, highlight the picking noises at **2.8 kHz** with the EQ. But the Dan Dean Essential Bass Collection can do much more than just classic bass sounds! ✨



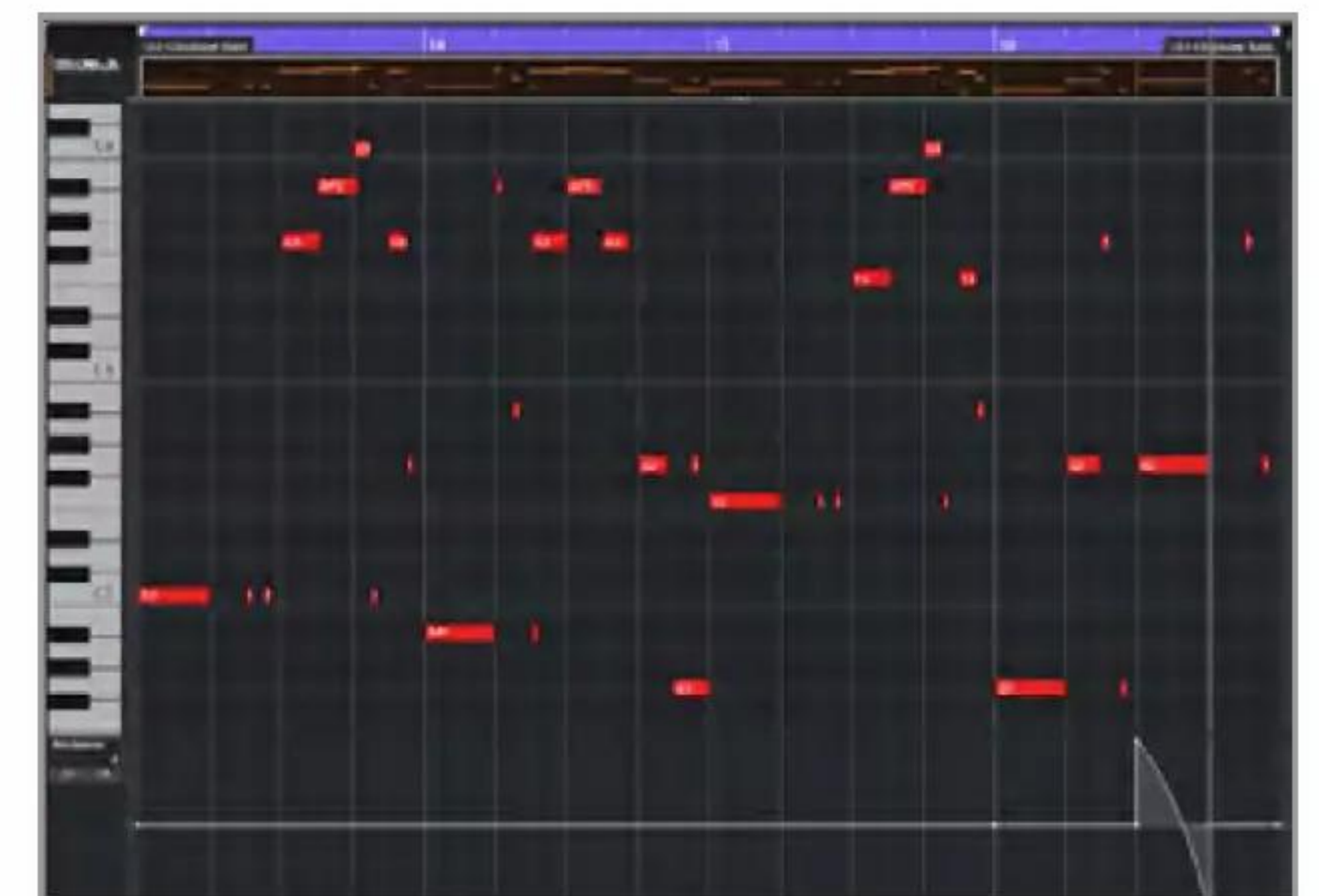
7 Fake Synth Bass

With the use of distortion effects, synth-like sounds can also be elicited from the plug-in. Load another instance, this time with the preset **Fender Telecaster Pick**. For heavily distorted sounds, it is advisable to choose a low **Release** value and set **Release Noise** to 0. Then, switch to the **FX** page. ✨



8 Heavily Distort

Load the **Distortion** effect in the first effect slot and choose the **Hard** type here. First, set a low **Post Gain** value, then you can turn up the **Drive** significantly. You can emphasize certain frequency ranges like the basses with the equalizer beforehand. For an even more synthetic sound, try a playing style that's less typical for basses. ✨



9 Synth Bassline

Expressive synth basslines are particularly successful with the use of Portamento effects and Pitch Bends over 12 semitones. Also, be sure to try the phaser effect of the plug-in to give the bass a psychedelic sound and refine it with a pinch of reverb, if necessary. Have fun with further experiments. ✨

Power Producer: FL Studio

Authentic VST instruments

The machine plays virtual instruments perfectly. Oftentimes just too perfectly, which results in the naturalness and liveliness of the instrument being lost. After all, small variations are normal for our ears with real instruments. How to give virtual instruments the necessary touch of humanity and, therefore, authenticity is what it's all about now.

by Ruben Mantel

Project information



Material: FL Studio 2024

Time required: Approximately 20 minutes

Content: Make virtual instruments sound as realistic as possible.

Difficulty: Advanced



1 VST Selection

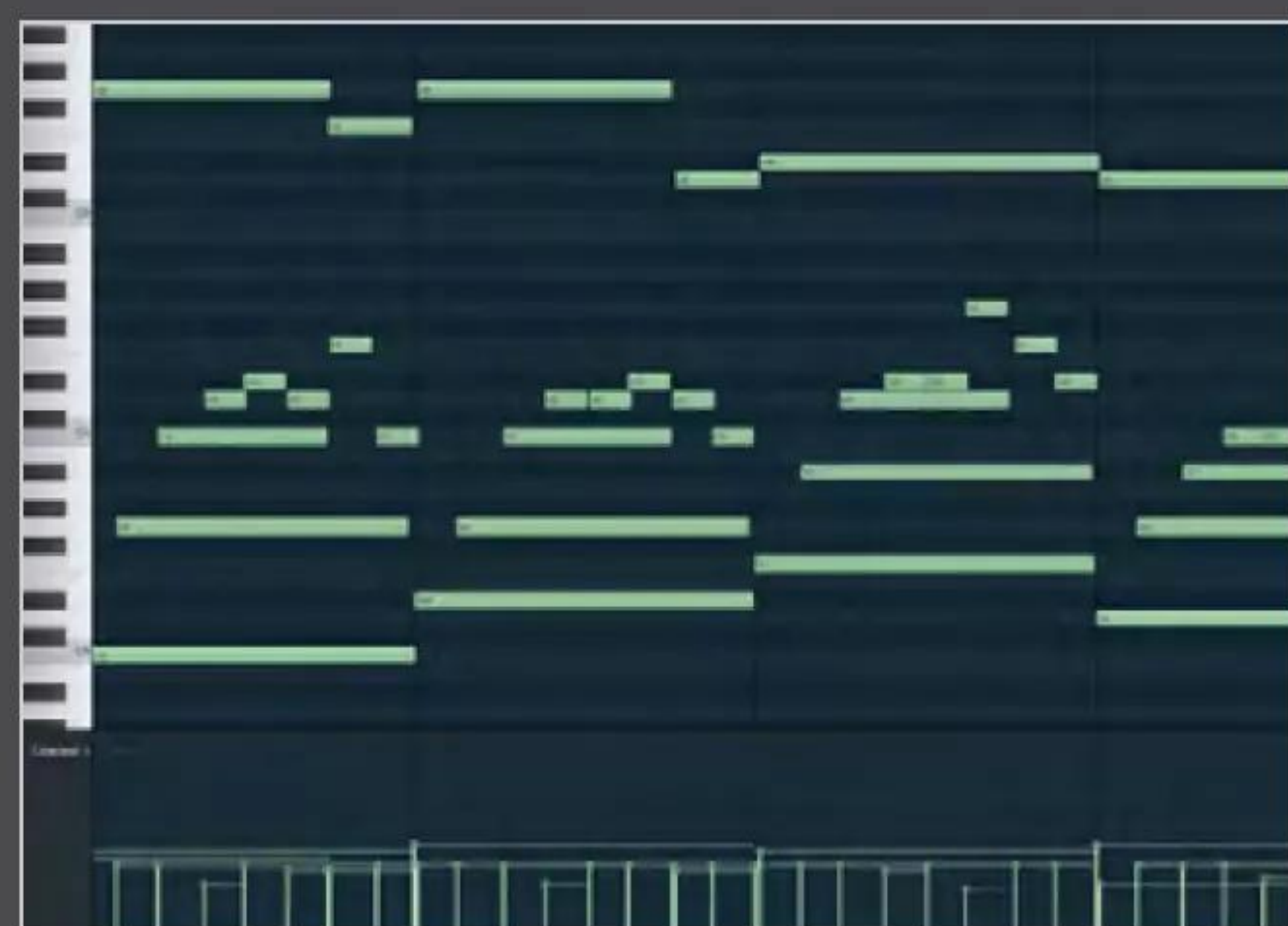
As a basis, we first need the virtual instrument, of course. Make sure to use a plugin that uses samples of real recorded instruments, since synthetic instruments can often be recognized as artificial. Here, for example, we used the **NOIRE** grand piano from the **Kontakt 7** library. ✨

2 Playability

Ask yourself what is realistically possible for a human to play. Melodies with octave jumps too great, large chords with notes that are too far apart, or simply too many notes at once are simply impossible to play. Also, clearly divide what should be played by the **left** and by the **right** hand. ✨

3 Timing

Even the best pianist in the world couldn't play the notes as accurately in time as the computer does. But that's a good thing because this exact timing results in a loss of naturalness. So, deliberately move individual notes **a few milliseconds** before or after the actual count time without any repeating patterns. ✨



4 Volume Adjustments

As with the timing, **variation** in the volume of the individual notes gives more realism.

Expression also plays an important role here, meaning that certain notes or passages are deliberately played louder to accentuate and **emphasize** them. Ask yourself which parts of the melody you want to draw particular attention to. ✨

5 Panning

Since, in a piano, the lower notes are on the right and higher notes are on the left for the listener, and they are also louder in the respective ear, we also set this effect for more realism in the Piano Roll. To do this, go under **control** from **Velocity** to **Note Pan**, and adjust notes lower further left and higher further right in the stereo field. ✨

6 Space

Now our VST instrument is equipped with a **Reverb** in the mixer. Many plugins also offer reverb and other effects in the plugin itself, but a new effect plugin in the mixer usually gives you more control. For example, use **fruity Reverb 2** with **moderate decay** and **predelay** times to simulate a real space. ✨

Power Producer: Logic Pro 11

Stutter effects in real-time

There are numerous ways to transform ideas into music. Today, producers have the freedom to use a variety of tools to edit audio files according to their vision. In this episode of our Logic workshops, we show you how to edit loops creatively and in real-time without needing to proceed destructively.

by Stefan Hofmann

Project information

Material: Logic Pro (Version 11.1)

Time required: 30 minutes

Content: Create stutter effects in real-time using built-in tools.

Difficulty: Advanced



1 Load a Loop

We load the Apple Loop “Monster Chord Layers” onto a track in Logic. For our manual Stutter Effect, loops with a melody and perhaps a few instruments in the background - but without drums is best because we will rhythmically edit the sample later, giving us more freedom. However, you can still try it. ✨



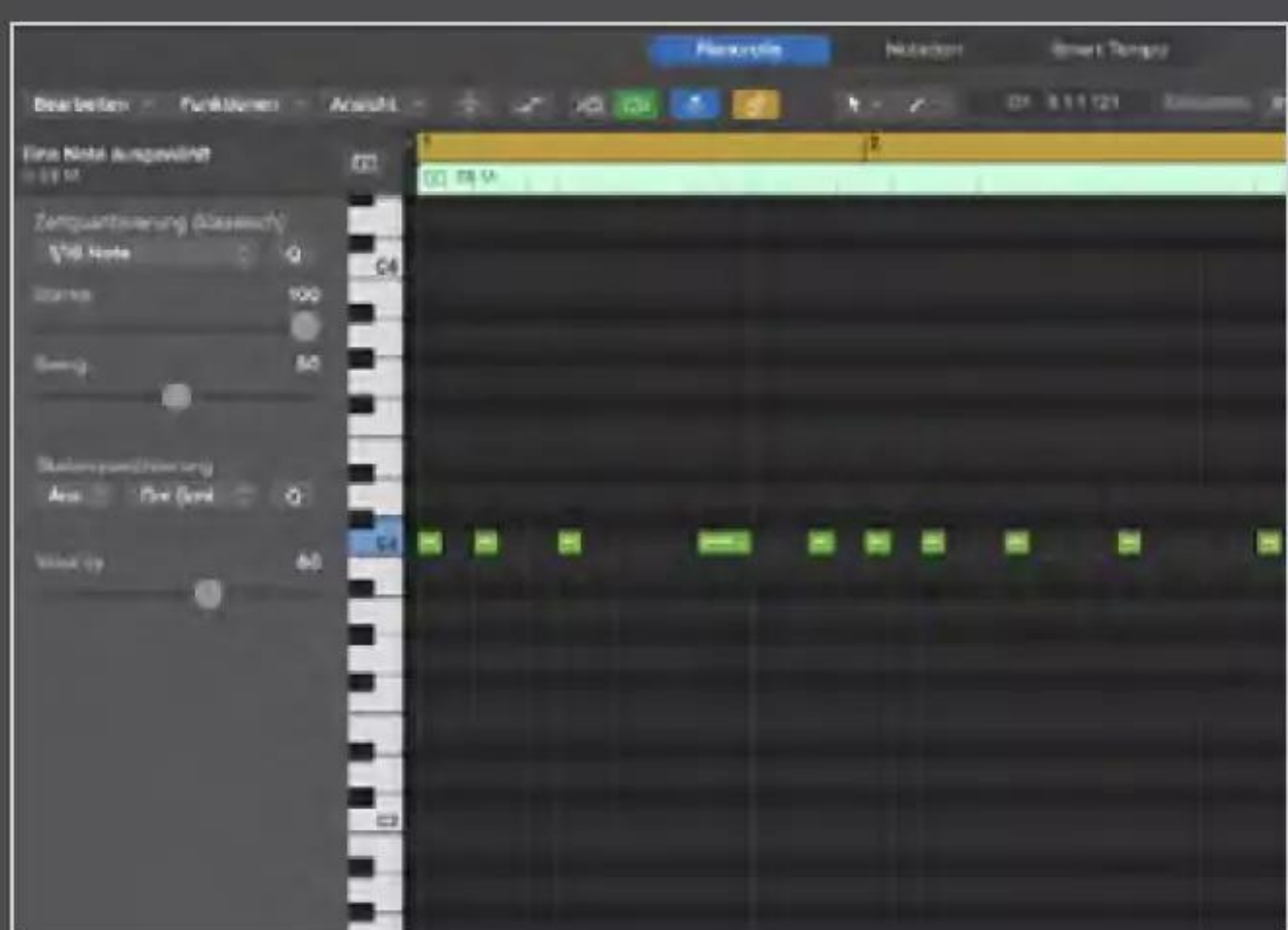
2 Gate the Noise

We load a noise gate and set Hysteresis and Hold to 0 dB to make the gate respond faster. We also choose fast Attack and Release Times of around 10 ms. Now we've prepared the gate for the next step. Create a track for software instruments and load the built-in ES M Synth. ✨



3 Silent Synth

We mute the synth by selecting “None” under “Output”. Our sound generator will be useful shortly. Now we reopen the gate we loaded onto the loop track and select our synth under “Sidechain”. Now we can finally get creative and make music! ✨



4 Groove It

We let the loop run continuously. It only sounds for the duration of the MIDI notes we set in the piano roll of the synth track. The pitch where the block is located does not matter. You can create a rhythm using your MIDI controller or the pencil tool. We place the MIDI notes neatly on the “C3” note. ✨



5 Rhythm

Copy the loop over any desired time span and rhythmize it via MIDI. If you don't like the loop, simply replace it, the rhythm remains unchanged. This way, you can craft songs and give them a catchy, personal, and varied feel. Our manual stutter effect also works great on vocals! ✨



6 Have Fun

You can also control multiple tracks with the same or a different instrument track. Duplicate the audio track and load the loop “Jacaranda Singers 01”. This fits melodically with the first track and now receives the same rhythm. Have fun recreating your own manual stutter effect! ✨

Power Producer: Steinberg Cubase

Converting melodies to atmos

Your melody sounds nice, but it's missing something special? No problem! With the new Shimmer reverb and the flexible StudioDelay from Cubase 14, you can transform simple notes into captivating, expansive soundscapes. Whether it's spherical pads, dreamy echo cascades, or floating soundscapes – with just a few tweaks, you can create fascinating ambient textures. by Vera Schumacher

Project info

Material: Cubase 14 Artist or Pro
Time required: From 30 minutes
Content: Creating ambient textures from piano, guitar, and synth sounds with StudioDelay and Shimmer.
Difficulty: Advanced



1 Piano basis

Want to conjure atmospheric sound worlds from simple melodies? With the new **Shimmer** and **StudioDelay** effects from Cubase 14, it's a breeze. We use the free [1] **LoFi Piano** and **Guitar Harmonics Essential** instruments for HALion Sonic 7 as sound sources, and a bass sound from the **Retrologue** virtual-analog synthesizer. ✨

2 Minimal arpeggio

Next, load **HALion Sonic** as a VST instrument and click on the **Mediabay** of HALion Sonic to the **LoFi Piano** library. Select the preset **Clean Upright** and reduce the **Reverb** value to 0. Play a minimal eighth note arpeggio as shown in the picture, which leaves a lot of space for the effects. Then, load **Shimmer** as an Insert Effect. ✨

3 Shimmer reverb

Set the **Pitch** parameter to **12.00** steps, so that the generated repetitions sound an octave above the original and adjust the remaining settings as shown. This creates a shimmering reverb that extends your melody upwards and gives it a floating tonal color. Want to enhance the effect further? ✨



4 Add delay!

Add the StudioDelay plug-in to the first Insert Effect slot of the track. With the settings shown and a Delay Time of **1/8D**, the arpeggio is rhythmically extended. Since the repetitions run through the Shimmer reverb, our arpeggio sounds even more atmospheric. Now your ambient track needs a solid foundation. ✨

5 Gentle bass

To do this, we create a gentle bass with **Retrologue** (see picture), which we also refine with **StudioDelay**, again with a Delay Time of **1/8D**. The bass plays a simple line with the root notes of the arpeggio. For airy overtones, the free **Guitar Harmonics Essential** instrument for HALion Sonic 7 is perfect. ✨

6 Guitar accents

Load the instrument and deactivate the internal effects. Complement the piano with individual notes, as shown in the image. Now you can embellish the line with StudioDelay and a long, dense reverb effect from **Revelation**. Tip: By automating the effect parameters, you can achieve lively arrangements by simple means. ✨

Power Producer: Ableton Live

Perfect bass with compression

The compressor is an essential tool in the mixing process – especially for the bass. Properly applied compression gives it consistency, assertiveness, and punch. But if used incorrectly, the bass sounds weak, blurry, or lifeless. In this workshop, you will learn to avoid common compression mistakes and find the right settings for a powerful, present sound. by Maya C. Sternel

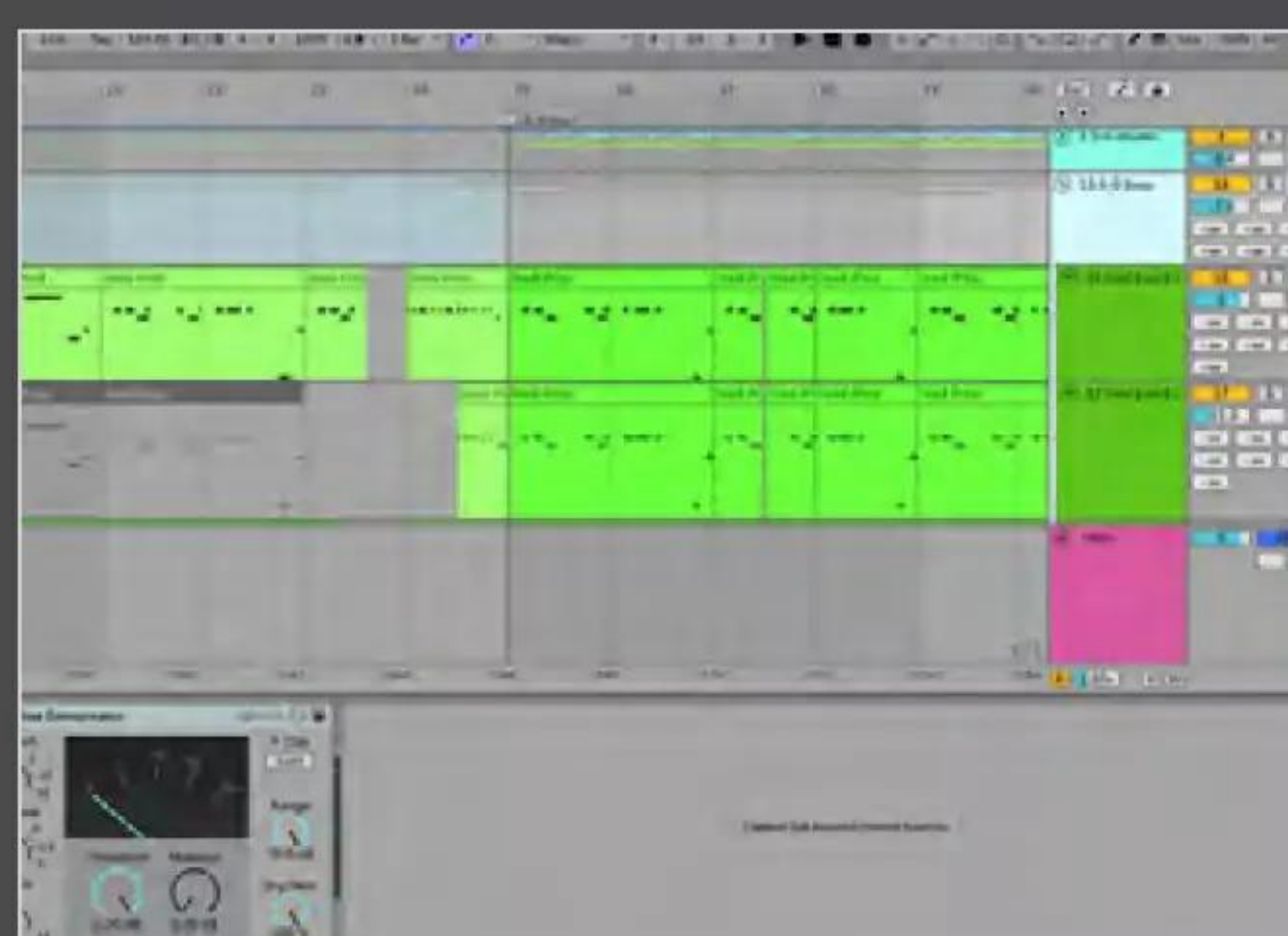
Project information

Material: Ableton Live 12

Time required: 30 minutes

Content: Make the bass more powerful and present through compression, parameter settings and effects on the signal, choosing the appropriate compressor type, options for level control.

Difficulty: Advanced



1 Choose compressor type

Ableton Live offers you various compressors with their own sound character. While the standard compressor is neutral and suitable for subtle dynamic processing. The Multiband Dynamics allows targeted frequency compression. The Glue Compressor is ideal, especially for layered basses, as it connects layers and adds analog warmth. 🌟



2 Remove resonances

If your bass has a lot of low-end, it can lead to unwanted pumping or a dull sound. If this is the case with your bass, load an EQ with a high-pass around 30-40 Hz. Also, remove other problematic resonances with the EQ. This allows the compressor to work more effectively without amplifying disruptive frequencies. 🌟



3 Maintain depth

Set the threshold to achieve 3-4 dB gain reduction. However, the bass range often loses impact and depth. To avoid this, activate the **sidechain EQ**. Set the high-pass filter between 80-190 Hz and increase the threshold to maintain 3-4 dB gain reduction. Compensate for the volume loss with makeup gain. 🌟



4 Adjust levels

A compressor is not a volume control! If your bass is very dynamic, first automate the volume. To do this, load a Utility onto the track and automate the **gain**. This allows the compressor to work more evenly and the sound remains more natural. And by using the Utility, you still have the volume fader available for mixing. 🌟



5 Shape character

Attack and **release** times influence the character of the bass. An attack time under 5 ms swallows transients and the bass loses punch, while attack times of 10-20 ms make the bass more punchy. But if the release is too fast, it causes audible pumping. It is best to choose a medium release time between 50-150 ms. 🌟



6 Control dynamics

Too much compression makes the bass sound flat and expressionless. A **ratio** of 2:1 to 3:1 provides gentle dynamic control, 4:1 to 6:1 for an even sound. With an even higher ratio, it can happen that the bass can sound lifeless. To maintain natural dynamics, the gain reduction shouldn't exceed 3-6 dB. 🌟



Power Producer: Bitwig Studio

Mix perfect drums & vocals

Transient Split, the second of the four Spectral Devices in Bitwig, splits the signal spectrally – into transients and the tonal content. This is similar to the familiar Split EQ plugin by Eventide. However, Transient Split goes much further. This is because you are not limited to only being able to manipulate the transient and tonal frequencies separately. Transient Split offers unprecedented possibilities for mixing drums and vocals. **by Laura Emiliano**

Project information



Material: Bitwig Studio 4.4 and later

Time required: 30-60 minutes

Content: Mix drum beats faster with Transient Split

Difficulty: Advanced to Professional



Audio Demo



1 Yellow vs. blue

In Loud Split, there are three colors for three volumes; in **Transient Split**, the colors yellow (for the transients) and light blue (for the tonal elements). If you've ever wondered what those legendary transients that mixing tips talk about sound like, **Transient Split** is an excellent learning tool: Simply solo the transients. ✨

2 Decay and smoothing

Decay and **Smoothing** change the spectral manipulation of signal parts. The smaller the **Decay** value, the shorter the transients fade out until the signal is pushed into the tonal area. **Smoothing** determines how much the tonal part is spectrally smoothed. Both parameters allow the tool to be adjusted to the source material. ✨

3 Blend and Bias

To the left and right of the signal display are two faders. The left one determines the **Analysis Bias**, shifting the focus more towards transients (up) or tonal elements (down). With Blend on the right determines the signal part at the output. Additionally, there are more options for transients and the integrated Tilt-EQ in the Help area on the left in Bitwig. ✨



4 Clean mix

If you use a drum beat with too much reverb, it's enough to load Transient Split into the track and simply **turn Blend towards** the transient and the reverb disappears. Or, if you want to make a beat sound more spatial without smearing the transients, load the tool and apply reverb only to the **Tones** signal. ✨

5 Compression miracle

When it comes to compression, the strength of Transient Split becomes even more apparent. Here, load two instances of **Compressor+** each on **transients** and **tones** without destroying the transients due to attack times that are too short or bringing tonal elements into pumping due to release times that are too short. It's a new level of drum compression. ✨

6 Improve pronunciation

And finally, another area of application where Transient Split stands alone in my perception. By compressing and amplifying the transient signal more strongly in vocal and, in particular, speech recordings, you can improve the pronunciation of a vocal recording, especially enhancing the consonants. ✨

Power Producer: Reason Saturation – well dosed

We all surely know that Saturation can be used to enhance sounds with overtones. But what to do when we are satisfied with our sound, but the saturation is too heavy in certain areas? In this article, you'll learn how to adjust the saturation tonally without altering the raw signal too much.

by Philipp Matthes

Project info

Material: Reason 13

Time required: 10 - 15 minutes

Content: Subtle use of saturation

Difficulty: Advanced



1 Create 1 Combinator

Create a Combinator so you have access to this patch at any time. We connect its audio inputs on the back with an instrument of our choice. In our example, we use a Dr. Octo Rex for simplicity. Attach whatever you like to the Combinator. This method is suitable for any type of sound. ✨



2 Double works better

Drag two Equalizers, one below the other, into the Combinator. They automatically connect in series. Activate Frequency Band 1 on both and map both Frequency knobs to **Control 1** of the Combinator. Map the two Gain knobs to **Control 2**. We name **Control 1 Frequency** and **Control 2 Level**. Right-click on the knobs to do it faster. ✨



3 Circuit

In the Combinator Matrix, some settings are needed. To avoid an exaggerated effect, select EQ 1 on the right and limit the Gain value on the left side to **-50 to +50**. For the second EQ, invert the values to **+50 to -50**. To do so, drag the markers with the mouse to the opposite side. ✨



4 Screamer4, Baby

Turn the **Gain** knob for a self-test. Both EQs should act exactly mirrored to each other. The result should initially have no noticeable effect. If the knobs work correctly, drag a Screamer4 into the rack and place it between the two EQs. Reason's routing automatically connects the Screamer 4 in series between our EQs. ✨



5 Why the effort?

Why not just use Screamer's filter? The output does not change due to the cancelling EQs. However, if an effect is placed in between, it is influenced by the settings of the first EQ. This means, disturbing frequencies can be tamed through subtractive EQing, while additive EQing specifically amplifies the effect. ✨



6 Combinator Mapping

Also, for the Screamer4, buttons and knobs should be created on the Combinator. So - because it's smart - we map the desired parameters to the knobs and switches of the Combinator by right-clicking on them. This way, we don't have to open the Combinator to change important values, but have everything at hand on the Combinator faceplate. ✨

Song Starter

Here's how:
Dream Trance like
Dyk & Buuren

Take a look
at YouTube
and get
inspired



[www.youtube.com/
@BeatMagazin](https://www.youtube.com/@BeatMagazin)



Unfortunately, your Muse isn't available on demand – but inspiration can be! From now on, in cooperation with EMS – Electronic Music School, we'll be delivering fresh song ideas, track templates, samples, and MIDI files as creative injections every month, which will bring new ideas to you. This brings fresh air to your routine or lets you explore completely new musical paths. Whether you're a fresh Beatmaker or an experienced Sound Designer, you'll find something here! **by Jeyenne**

What really makes Trance? Are supersaws with major melodies and heavy kicks really the whole recipe, or is there more behind it? Adrian delves into this fascinating subject for us and deconstructs in the video what the legendary, hard-hitting sound of the Nineties is actually made of. He doesn't just stick to the past, but skillfully brings the entire concept into the present. And to ensure that every Trance lover gets their money's worth, he presents not just one, but two versions: a harder one that hits right in the gut with its brutal beats and driving melodies, and a softer one that invites you to dream with atmospheric sounds and gentle rhythms.

ABOUT THE EMS

At the EMS - Electronic Music School, you will learn everything from composing and producing Electronic Music to DJing and marketing your own tracks - exclusively from professionals working in the scene. The aim is to help you produce and sell Electronic Music professionally. Create club-ready tracks to current standards, optimize your DJ gig and live act and get off to a successful start.

The focus is on support on a personal level with an individual approach, from the beginning of production to the professional music business. With branches in Berlin and Cologne, as well as our online offering, we provide preparatory courses, workshops and individual coaching for aspiring Music Producers, DJs and Artists.

We are more than just an ordinary music school - we are authentic and close to the scene - we are an Artist Network of producers, DJs and musicians.

ems
electronic music school

www.em-school.com

MAY 8-11
LOCATIONS: H105 - H108

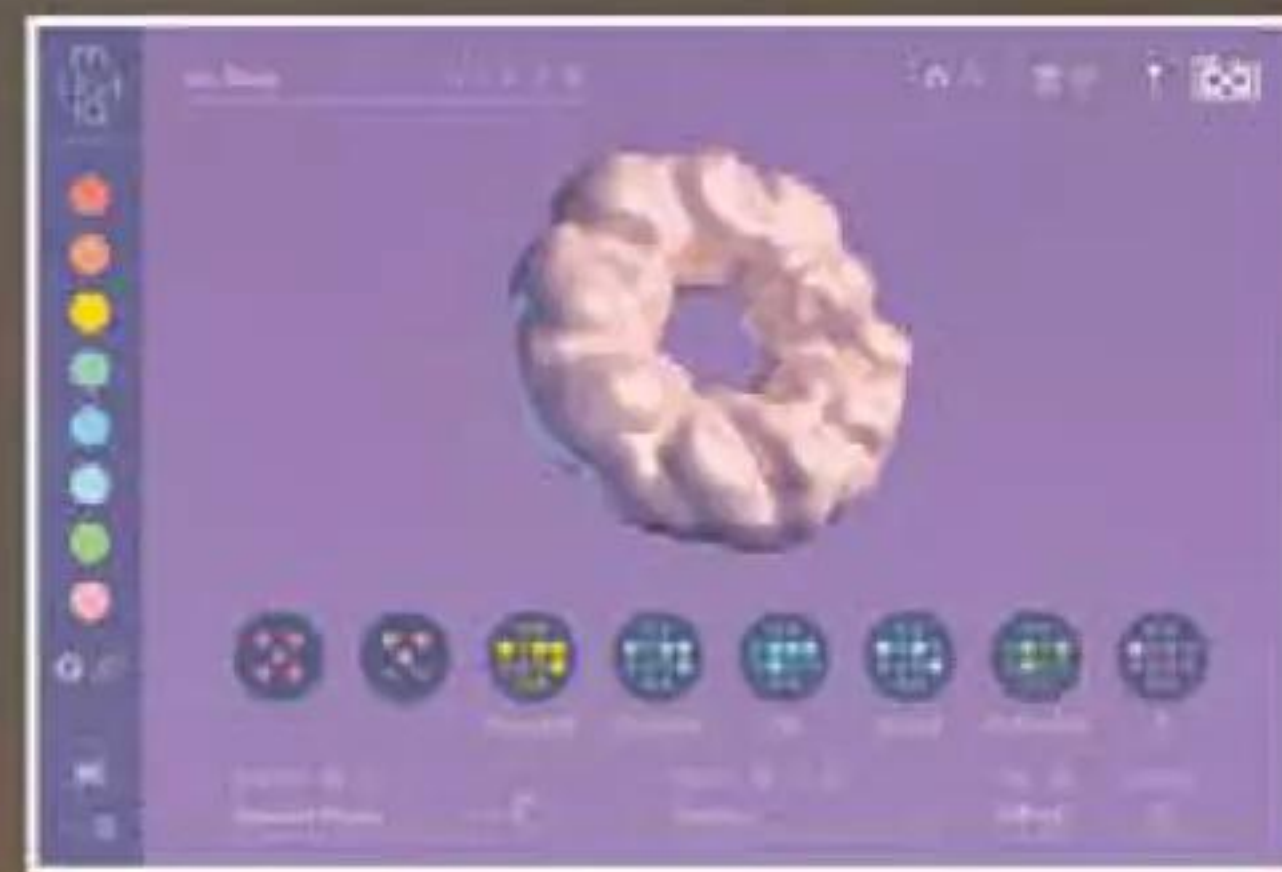
COME AND MEET FL STUDIO & FRIENDS at SUPERBOOTH 25



unitedplugins.com



meldaproduction.com



uvi.net



waproduction.com



- Talk with experts
- Try our products
- Get a nice (software) present
- Grab the SUPERBOOTH deals



FL STUDIO

image-line.com

Test: Expressive E Imagine

The name is aptly chosen: Imagine is based on Physical Modeling and aims to give you the possibility of creating an instrument according to your own ideas. For this, you can excite tubes, sound plates, drum heads, and strings with virtual mallets, noise, or complex sequences. by Jan Wilking

Features

- Software instrument
- Physical modeling sound generation
- Dual-layer
- Extensive effects section
- Four automatable macro controllers
- Browser with 400 presets
- Standalone, AU, VST2, VST3
- from Windows 10, macOS 10.13
- Copy Protection: iLok 2/3

Facts

Developer: Expressive E
Web: expressivee.com
Distribution: Website
Price: 145 Euro

- Outstanding sound
- Transparent, punchy sound
- Diverse sound possibilities
- Intuitive operation with graphics
- Dual layer
- Dual sequencer
- Macro modulators
- Integrated effects

Sound: [5 bars]
Operation: [5 bars]
Price/Perf: [5 bars]
Total: [5 bars]

Alternatives

- AAS Chromaphone 3
179 Euro
applied-acoustics.com
- Rhizomatic Plasmonic
149 Euro
rhizomatic.fr
- Physical Audio
95 Euro
physicalaudio.co.uk



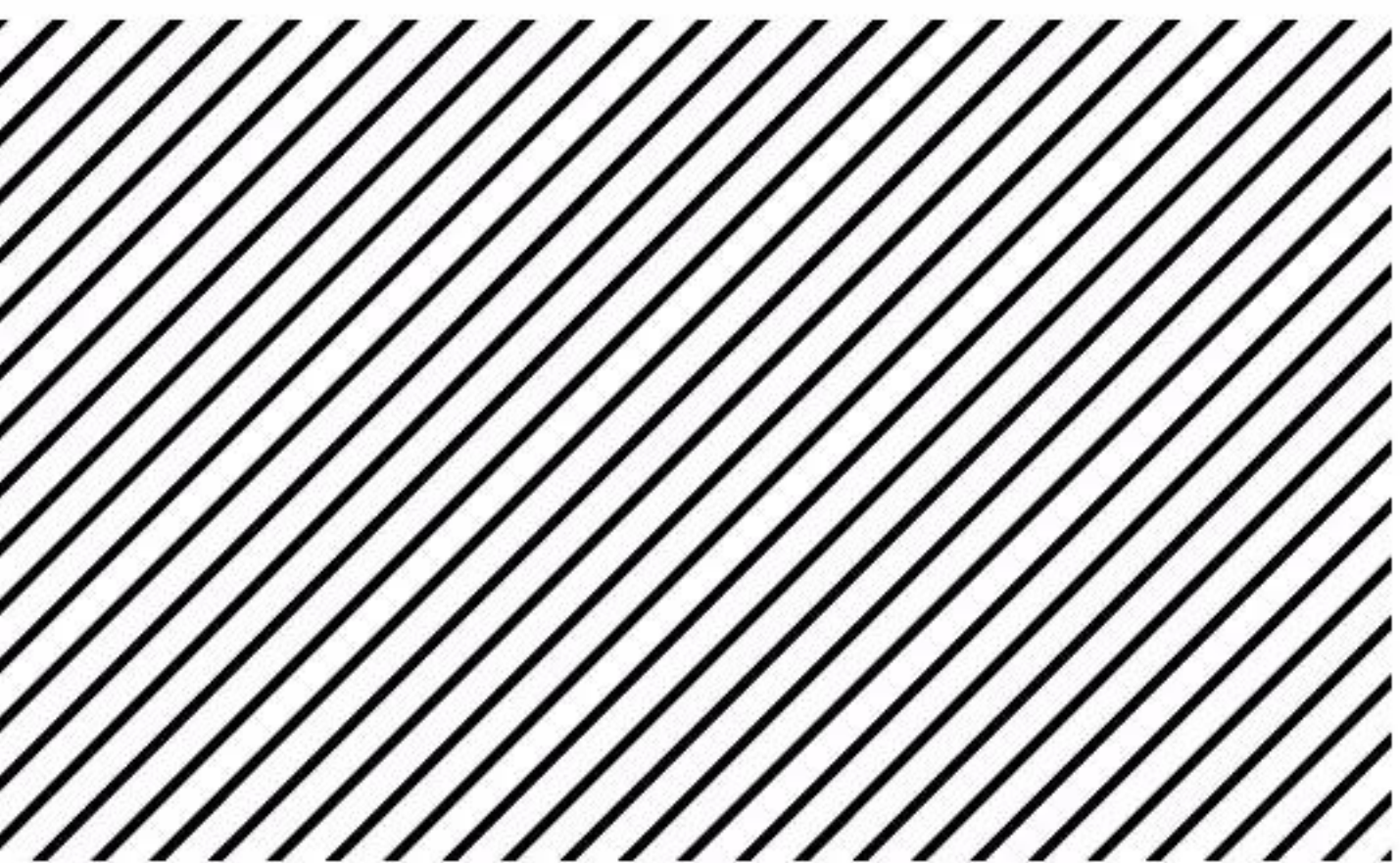
Expressive graphics and combo presets make creating your own instruments easier.

Imagine is the result of a collaboration between the French company Expressive E and the Canadians from Applied Acoustic Systems (AAS). While Expressive E has made a name for itself, particularly with their innovative Osmose MPE keyboard, AAS are pioneers in the field of physical modeling. Therefore, Imagine also somewhat reminds of AAS Chromaphone 3, the current flagship of the Canadians.

Physical modeling

Acoustic instruments of all kinds, from flute and saxophone to guitar, violin, piano, drum and xylophone, produce their sounds according to a similar principle. A sound-producing element (reed, string, skin or wood/metal plate) is "stimulated" by the musician. This can be done by blowing, plucking, stroking or beating, directly by hand or with a tool such as a plectrum or stick.

Amplified by a sound body (for example, the body of a guitar or drum or the tube of a saxophone), the sound produced reaches our ears. Physical Modeling takes up this idea, but allows a combination, such as a piano bowed by a bow



and amplified by a metal pipe. The result can then sound digital and artificial because we do not know the sound of this instrument and it would hardly be practicable to implement it in reality.

Due to this familiar principle and the special way of playing and interacting with the individual parameters, it can also sound somehow natural and organic and not purely synthetic.

Excited bodies

For the musical implementation of this concept, Imagine offers two identically constructed layers that can be used in parallel. For each layer, two modeled resonators can be combined, which are excited to vibrate by virtual mallets, noise, or complex sequences. For this purpose, there is a wide selection of virtual materials for sound generation (drum heads, tubes, sound plates, and strings) that can be played with mallets/hammers/brushes, noise/blowing, or dual sequencers with 16 steps each. Numerous pre-made combinations with fitting names like Hammered Bamboo Zither or Bowed Bell, along with the expressive graphics, make getting started easy.

Overall, the operation is smooth and intuitive, despite the complex technology. The focus is clearly on creating your own instruments according to your visions and ideas. Theoretically, you could also faithfully recreate actually existing instruments, but it's really the combinations that deviate from familiar patterns that make up the charm of Imagine. And

even if some parameters like resonance sound familiar, they have completely different effects in physical modeling. Shine and damping may make the sound brighter or duller similar to a filter, but react quite differently in conjunction with parameters like position and strength of the exciting element.

Modulation and effects

In the lower section, in addition to the sound generation, you will also find complex modulation options. They include a multi-stage envelope which, thanks to macros, can be controlled with just a few controls and can modulate both sound parameters and effects. In addition to vibrato/frequency shifter, there are two „Expressive FX“ that feature filter, distortion, chorus, equalizer and compressor. And since the instruments also need some space, there is a stereo delay and a good reverb at the end.

Verdict

Imagine's strengths clearly lie in organic and unusual signature sounds. Crystal-clear bell-like sounds with a certain flair, great moving ambient pads, sparkling arpeggios and crisp sequences with a very punchy sound, concise leads or transparent pads are quickly created, either on the basis of the many good presets or from scratch. They can be played very expressively, especially when using a high-quality keyboard, which quickly creates a real instrument feeling. The developers have also done a good job with the operation; rarely has the complex physical modeling been as intuitively accessible as with Imagine. However, you will need a powerful computer, as the calculation of the complex physical modeling technology requires some CPU power.



Test: Wavea Flite Create

With Flite Create, a new sound generator enters the stage that intelligently combines synthesis and sampling. Developed by Sharooz Raoofi, who has already created innovative tools for sound designers and producers with Sample Magic, Audiaire, and Wavetick. A must-have or just another synth among many? **by Vera Schumacher**

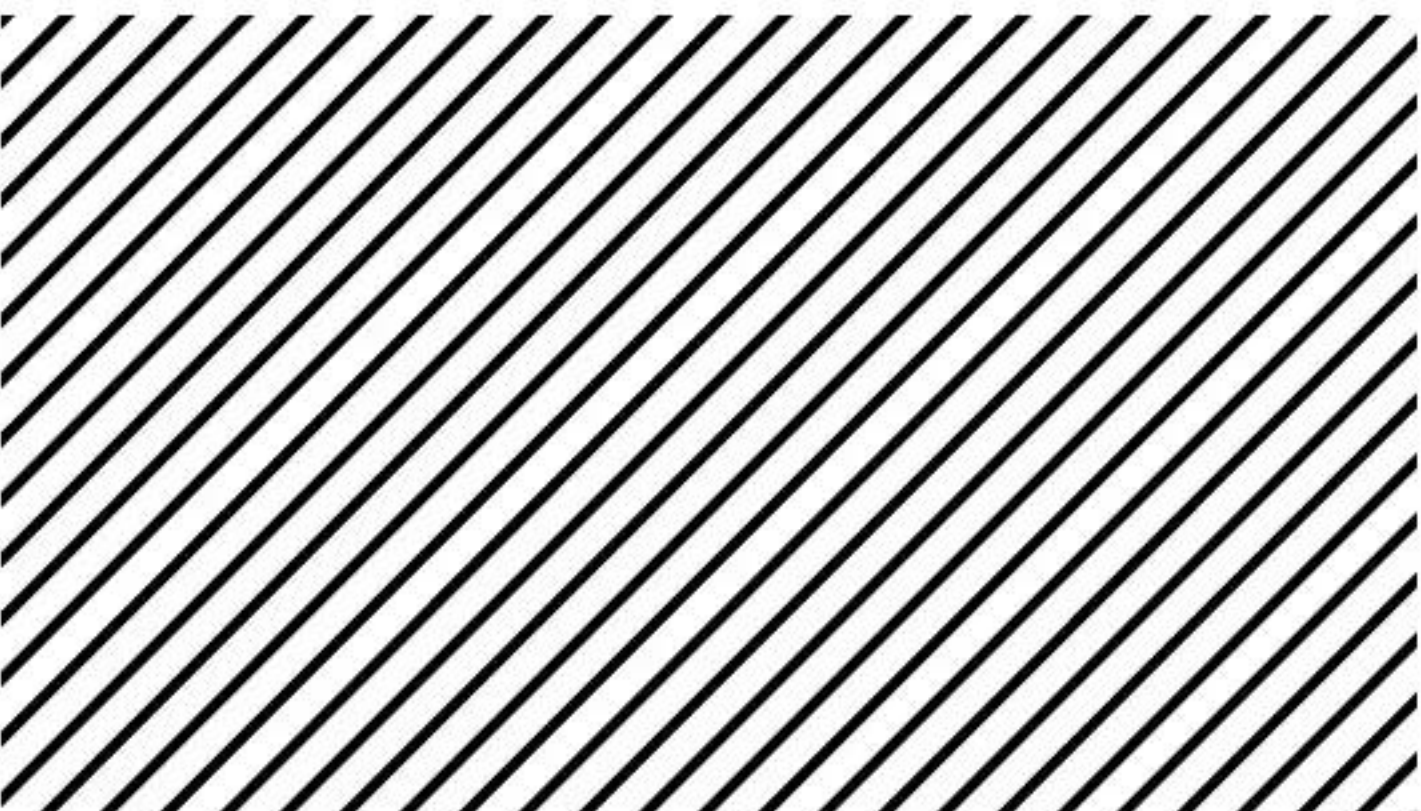
The basic version, Flite Play, is available for free and provides access to 200 presets with 2.5 GB of sounds. This allows a quick impression of the sonic possibilities without immediately delving deep into sound design. In Play mode, Flite presents itself with a simplified interface featuring eight controls. These are individually assigned for each preset and allow quick adjustments of volume, timbre, and other sound parameters.

Anyone who prefers to start playing right away without spending much time adjusting parameters will be well served here. The included presets and samples cover a broad spectrum: Synth Bases, Chords, Pads, Keys, and Sequences, but Drum Kits and Loops are included. Wavea also offers expansions to extend the sound palette. We highly recommend trying out the free version. Three expansions are currently available, focusing on Pads, Classic Drum Machines, and sounds for Techno, House, and Trap.

Synthesis and Sampling

For those who want to deeply dive into sound creation, the paid version, Flite Create, is interesting. With this version, you can switch between Play and Create mode, which opens up full sound generation with four sampler modules, a synth engine, and a noise generator. Here you can create your own sounds from scratch or customize existing presets in detail.

The synthesis engine relies on three oscillators that can switch between analog waveforms and wavetable synthesis. Various oscillator modes are available for flexible sound design, including Colour (similar to Pulse Width Modulation or Wavetable Position), Sync, Frequency Modulation (also exponential), Amplitude Modulation, and Unison.



Powerful features meet intuitive operation - Flite Create combines synthesis, multi-sampling, a rich modulation section, and convincing effects.

A noise generator is also on board. These sound sources can be freely routed to the two Multimode Filters with Lowpass, Highpass, and Bandpass modes, where you can choose between 12 dB and 24 dB slopes. Alternatively, the signals can be sent directly to the Amplifier.

Want even more sound variety? Flite Create also fulfills this wish with the four sampler modules. They support multi-samples with velocity layers, which is particularly advantageous for realistic instruments or detailed drum sounds. Flite can be played both polyphonically and monophonically.

Modulation and Sequencing

A highlight is the extensive modulation matrix, which allows up to eight targets per modulator. In addition to a Volume Envelope, two other freely assignable Envelopes and three LFOs are available. Additionally, there is a sequencer for notes with like parameters Pitch, Gate, and Velocity, as well as a modulation sequencer with 32 steps that can control any sound parameters. This allows for rhythmic sequences and ever-evolving sound progressions. It's a pity that macro-controlled parameters can no longer be directly adjusted via controls once they are assigned to a macro. With Delay, Flanger, Granular, LoFi, Re-

verb, and Vintage Chorus, a wide range of high-quality effects from Sinevibes is available. The sound quality is consistently impressive and gives Flite a professional character. Additionally, five 3-band EQs, each individually per voice, are available.

Verdict

Wavea Flite Create impresses as a versatile hybrid synthesizer that covers both vintage sounds and modern soundscapes. The combination of synthesis and sampler engine, flexible modulation matrix, and high-quality effects makes it a powerful tool for Producers and Sound Designers. The extensive preset library is particularly noteworthy. At the same time, the Create Mode offers extensive possibilities for individual sound design, including sample import and deep modulation. Operation is intuitive and easy. Assuming appropriate product maintenance, Flite Create could become a cult synthesizer. 🌟🌟



Features

- Hybrid synth & multi-sampler
- Over 200 presets
- Four sampler modules & three oscillators
- Modulation matrix and two 32-step sequencers
- 2 multimode filters
- 3 envelopes
- High-quality effects from Sinevibes
- 200 presets and 2.5 GB samples

Facts

- Manufacturer:** Wavea
- Web:** wavea.co
- Distribution:** Download
- Price:** 99 US-Dollar, Flite Play: free
- ▲ Powerful synth and sampler engine
- ▲ Sample import
- ▲ Versatile preset library
- ▲ Flexible modulation matrix
- ▲ Great sounding effects
- ▲ Clear user interface
- ▲ Fair price
- ▼ No user manual

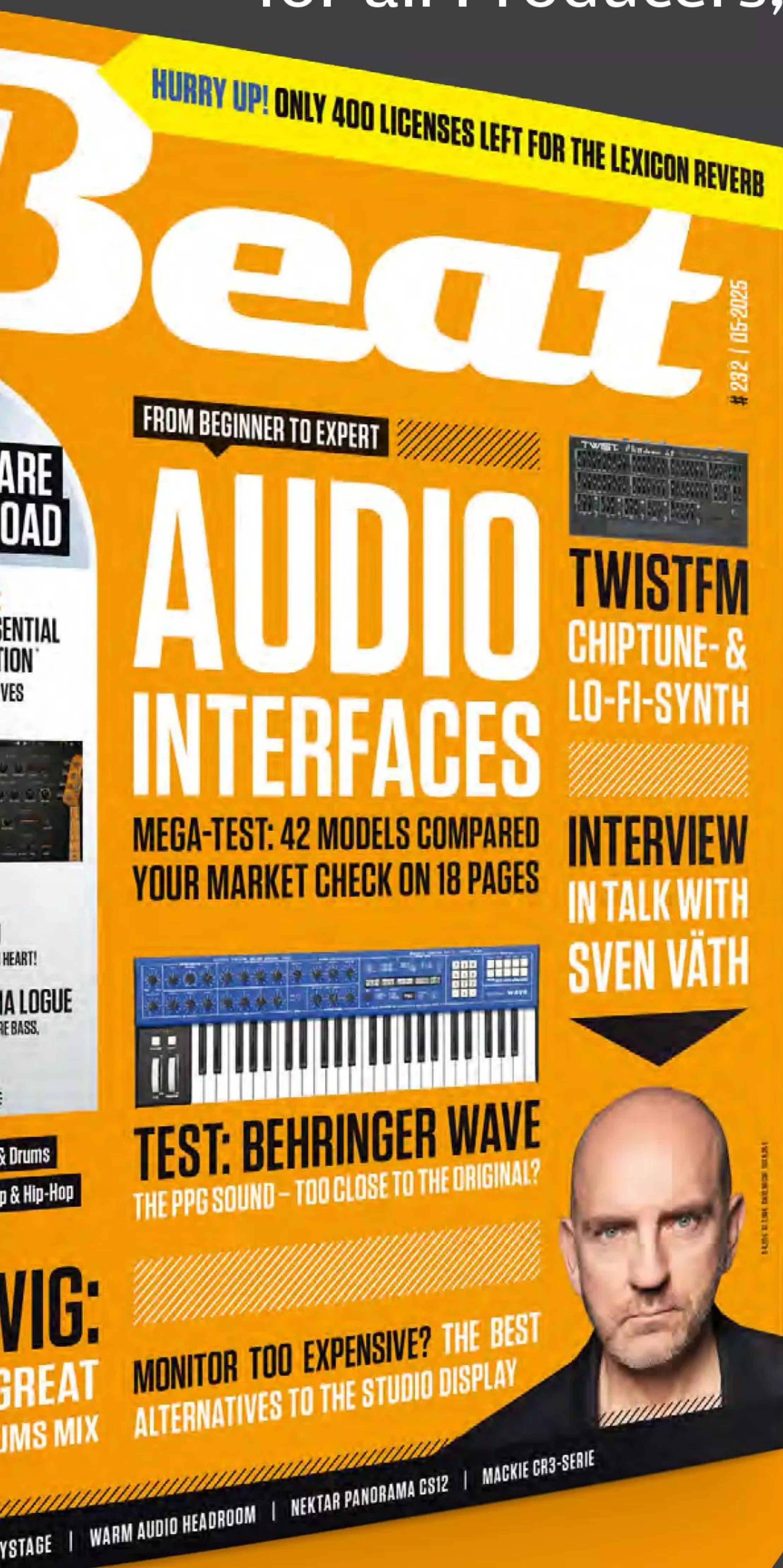
Sound:	■■■■■■■
Usage:	■■■■■■■
Price/Perf:	■■■■■■■
Overall:	■■■■■■■

Alternatives

- Arturia Pigments**
199 Euro
arturia.com
- KV331 SynthMaster 3**
\$99 US Dollars
kv331audio.com

INSPIRATION WHEN & WHERE YOU WANT

for all Producers, DJs and Musicians



12 MAG ISSUES STARTING AT 71,90 EURO / YEAR

ACCESS TO OVER 100 ISSUES IN THE ARCHIVE

GET OVER 1,2 TB OF INSTRUMENTS & SOUNDS

PLUS GIFT OF YOUR CHOICE!



Want it?

Get your subscription here:

www.plugins-samples.com



CHOOSE YOUR GIFT

Find your favorite subscription gift at
www.plugins-samples.com

SAVE \$99



BABY AUDIO SPACED OUT*

Spaced Out is a versatile multi-effect that combines delay and reverb in an innovative way. Highlights are the ducker, the 16-step sequencer and the X/Y pad for quick sound adjustment. Spaced Out is a guarantee for futuristic effects, from groovy delays and atmospheric textures to otherworldly reverse sounds.

www.babyaud.io

Gift ID: F1599

no additional costs



SAVE 69 €



TAL SOFTWARE TAL-U-NO-LX*

TAL-U-NO-LX is a must-have for fans of the warm vintage sound of the legendary Roland Juno-60. Whether you're looking for basses, leads, pads, arpeggios, or effect sounds, the software emulation faithfully captures the musical sound of the polyphonic analogue cult synth and scores with an intuitive user interface and low resource consumption.

www.tal-software.com

Gift ID: F904

no additional costs



SAVE \$199



REALITONE HIP HOP CREATOR*

This Kontakt instrument has everything you need to produce modern and old-school hip hop. Hip Hop Creator runs in the free Kontakt Player and comes with hundreds of inspiring loops on the one hand and a large pool of stylish samples on the other. On board are drums, bass and instrument sounds and even vocals.

www.realitone.com

Gift ID: F1512

no additional costs



SAVE 79 €



UVI PX V8*

UVI's PX V8 captures the remarkable sonic power of the eight-voice analogue synth Voyetra Eight from 1982 in a powerful sampling instrument for the free UVI Workstation and the Falcon sampler. The 400 inspiring presets include classic synthesiser sounds of the eighties, but also gripping contemporary sounds.

www.uvi.net

Gift ID: F1493

no additional costs



* Only while stocks last. Software is delivered as a download with a serial number.

Hands-on: Recreate Top-Ten Sounds

Dope Tracks #232

The desire to have that ONE sound at home, from that one track that you can't get out of your head, unites us Producers. Listen once, turn knobs, done. But adjusting what was heard to the right parameter values takes training. Every month on Dope Tracks, we'll show you two sounds from currently hot songs – this month, Morgan Seatree's Remix of Say My Name by Florence + The Machine and Birds of a Feather by Billie Eilish.

by Julian Schmauch



Audio demo
Florence + The Machine



Audio demo
Billie Eilish

Project info:

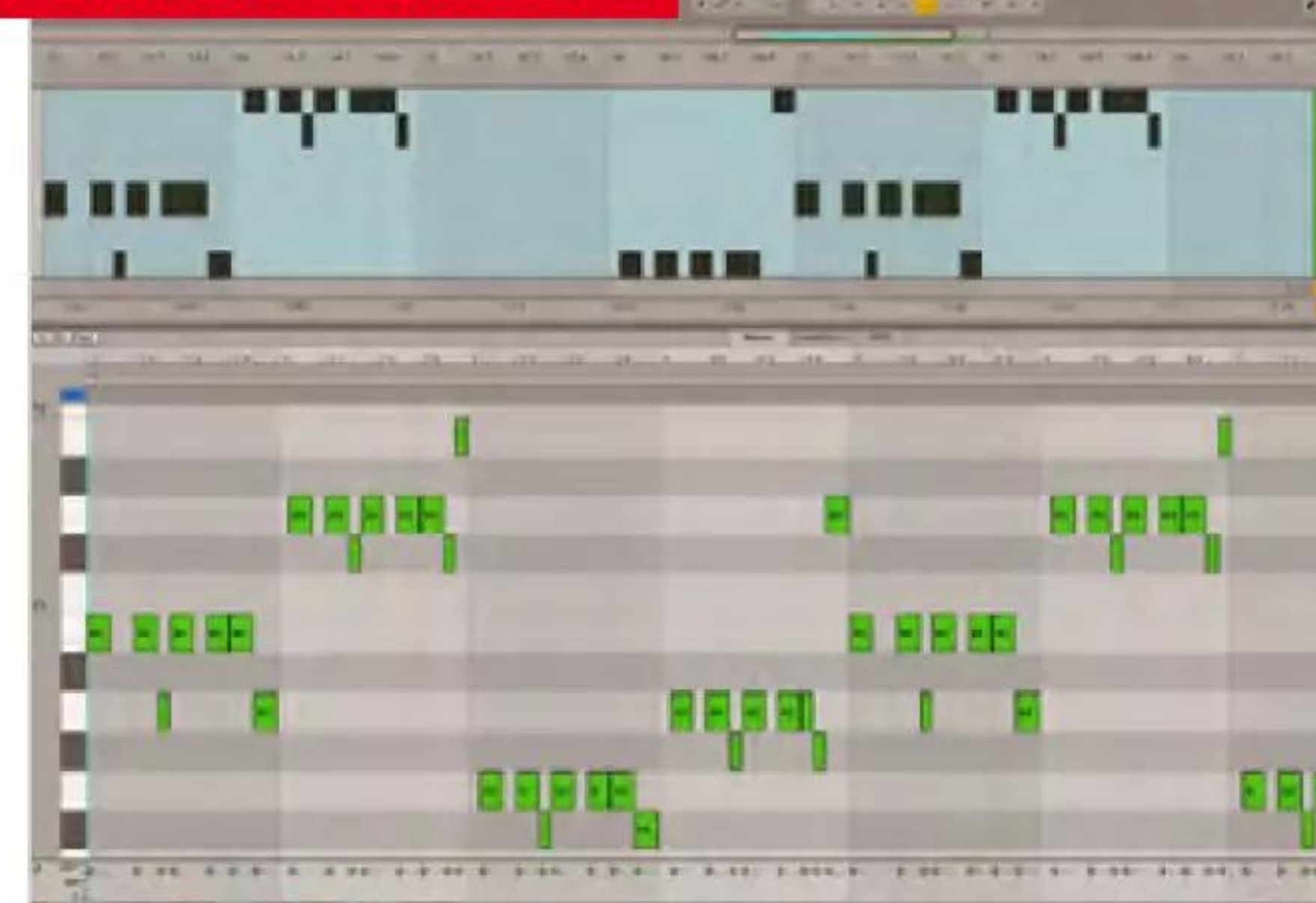
Material: DAW, various plug-ins

Time required: 1 - 2 hours

Content: Reconstruct sounds of popular Pop & EDM tracks.

Difficulty: Advanced to professional

Florence + The Machine - Say My Name (Morgan Seatree Remix): House Bass with u-He Hive 2



1 The Spectrum

Florence + The Machine was one of the most successful indie bands of the 2010s. The epic mix of Folk and Pop, and the voice of Florence Welch were a guaranteed success. One of their biggest songs, Spectrum (Say My Name), was released in 2011. A year later, Calvin Harris remixed the House-y version and it became an even bigger hit. ✨



4 Hive 2 with Osc 2

The sound is quite simple to recreate in virtually any synthesizer, as long as the filter sounds good. With Hive 2 from U-He, that's the case. Set Oscillator 1 to **Triangle Wave** one octave lower, then set Oscillator 2 to **Square Wave** and a fifth (+7) above. Enable OSC2 in **Filter 1**, otherwise it won't be heard. ✨

2 Morgan Seatree 2024

Twelve years later, DJ and producer Morgan Seatree from Manchester remixed the remix. It rages at 140 beats per minute, with the typical M1 Organ Bass as a base, taking over Calvin Harris' piano chords – practically an update of the club-friendly original. Seatree teased the remix in the fall, and Say My Name was released in December 2024. ✨



5 Filter and Envelopes

In Filter 1, turn the Cutoff all the way down. Then, modulate it with MOD1-Envelope and a Modulation Depth of 50. For the Amp **Envelope Attack**, set it to minimum, **Decay** to 50, **Sustain** to maximum and **Release** to 40. MOD1 has Attack also at minimum, **Decay** at 50, **Sustain** at 63 and **Release** at 30. ✨

3 Funky Bass Line

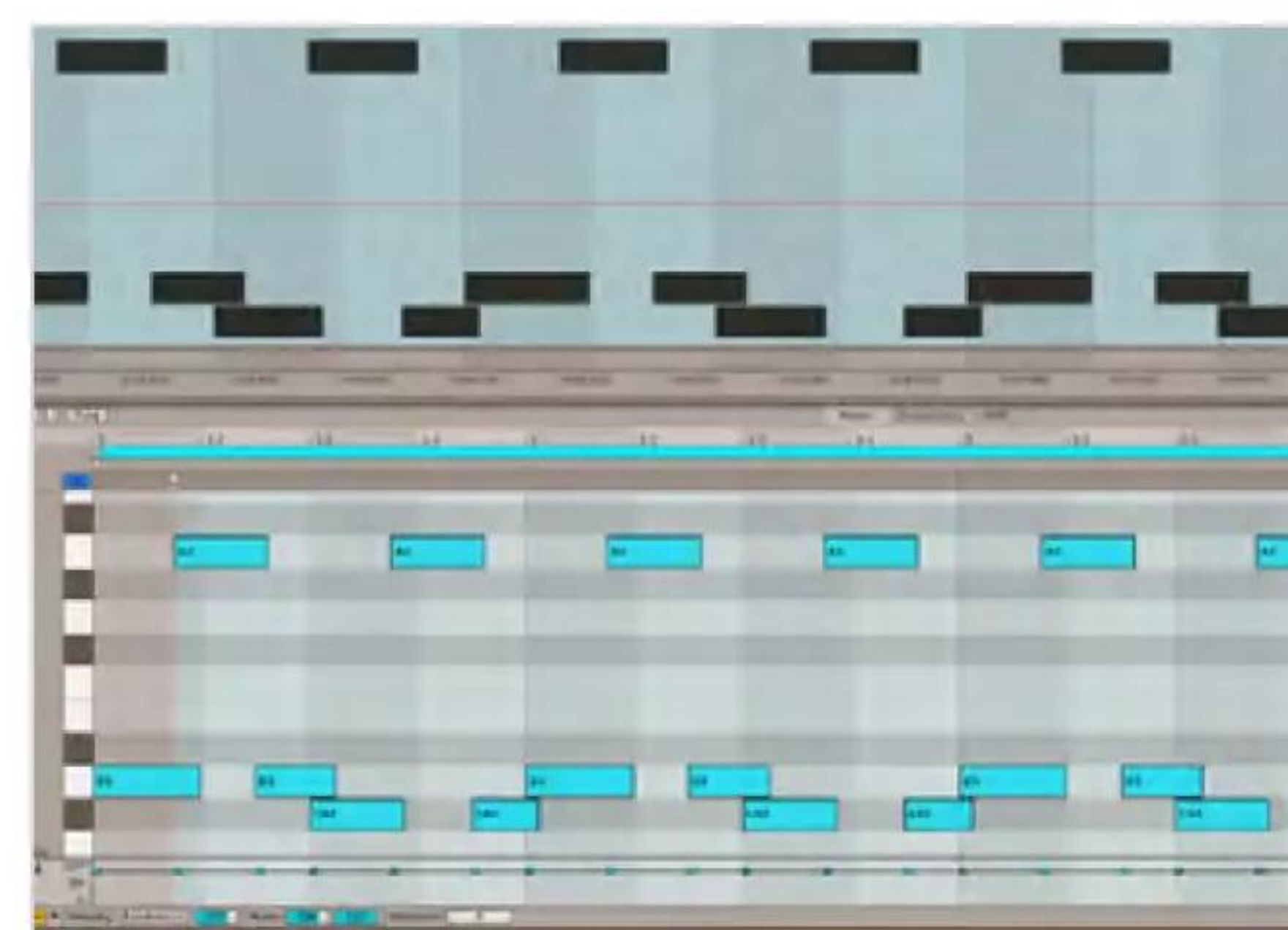
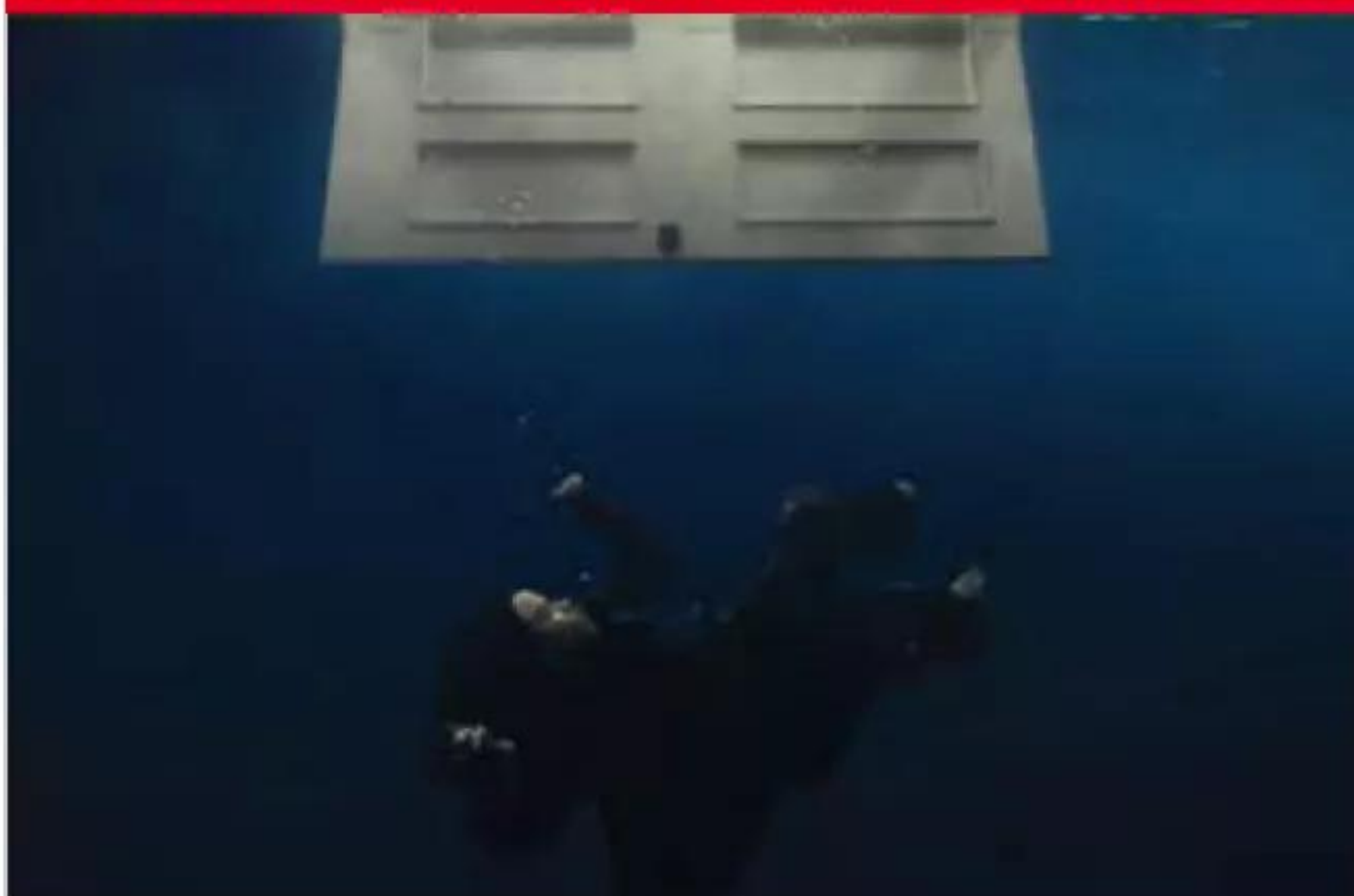
The sound of Organ Bass from the Korg M1 shaped about half of the House scene of the 90s. And since the resurgence of various 90s genres like Trance, Hardcore, and House, the sound has been very present again for several years. Perhaps even more important is the B minor bassline, where a lot of detailed work is invested in the notes. ✨



6 Comp and Reverb

Now we commit a cardinal sin of Mixing: Reverb on the bass! But that's exactly what's heard on the track on the Organ Bass. The Reverb in Hive 2 sounds excellent and a dash (**Mix 40**) adds additional space. For more punch, a good dose of compression is added through the integrated Compressor. ✨

Billie Eilish – Birds of a Feather: Bells with Arturia Pigments



1 Oldie Billie

Wait, such an old and commercial song on the Dope Tracks? Observant readers will have noticed that I'm increasingly broadening the series a bit beyond just Electronic. And who better fits than US singer Billie Eilish, who swept everything away again with her third album „Hit Me Hard And Soft“ in the Summer of 2024.

2 Finesse by Finneas

Like her first two albums, Billie wrote the songs with her brother Finneas. He, again, was responsible for the highly sophisticated production. Like their previous album, Finneas and Billie tried to distinguish themselves from the dark sound of their first album „When We All Fall Asleep, Where Do We Go“ with livelier songs. ❖

3 Lo-Fi Bells

In the arrangement, the Lo-Fi Bells meander rather unspectacularly in the background – three tones, nothing special. Yet they are (besides Billie's voice, of course) tonally the hallmark of „Birds of a Feather“, the recognition sound. Less than two seconds and you recognize the song just by the little melody. ❖



4 Pigments for the Sixth

Bell-like sounds can be created particularly realistically with physical modeling engines. How convenient that the Modal engine is just such a feature in the recently released update to Arturia Pigments 6. Here, virtual resonators are set into vibration by virtual collision or virtual friction. ❖



5 Stylish Modal Engines

In each engine slot of Pigments, place a Modal Engine. For Engine 1, select Transient as mode in the Collision Exciter on the left, and under Sample, select Organic. On the right module in the Friction Exciter, set **Density** to **1600 Hz** and **Volume** to **-10**. In the middle, set **Decay** to **0.5**, **Brilliance** to **0.75**, Timbre to Hollow and **Warp** to **8**. ❖



6 Octave Up!

Set Engine 2 to Tune +12, one octave up. In the Collision Exciter, set modern as sample, and for Friction on the left, set **Density** to 55 Hz. In the middle, set **Decay** to 0.64, **Brilliance** to 0.76 and **Timbre** to **Pinch**. Turn morph in shaper all the way up and set glass next to Form; also turn **Warp** all the way up. ❖



7 Double filter

For the filters, set Filter 1 to the new LoFi filter with Freq (like Cutoff) at about 25,000 Hz. Below, set Filter 2 to MINI (the Moog emulation) with the **Cutoff** to **750 hertz** and **Resonance** to **0.2**. Ensure that, in the filter routing at the top right, the serial signal flow from **Filter 1** to **Filter 2** is set; not parallel. ❖



8 Envelope settings

The percussiveness of the sound comes completely from the Modal Engines, so the envelopes here have rather little influence. Env AMP comes with minimal Attack and maximum Sustain, with Release at 1.25. Additionally, modulate the **Cutoff** of **Filter 2** with **Env 2** and a strength of 0.15. **Sustain** is at 0 and **Decay** at 500 milliseconds. ❖



9 Triple effect

The Multiband Compressor, Multi-Filter, and BL-20 Flanger are part of the effect chain in Pigments 6 that brings the sound closer to the original. You can leave all settings in the Multiband as they are. The Filter dampens with the **Cutoff** at **1000 Hz** and the Flanger smudges the whole thing slightly with a **Dry/Wet** at a maximum of **27 percent**. ❖



Zampler & MPC Expansion: ANA Logue

House Drops like Alok & Tiesto

In keeping with the two founding fathers of Electronic Dance Music, today we're turning back time and immersing ourselves in the world of analog synthesizer sounds. If that sounds too old-fashioned, this workshop will prove otherwise by showing you how to produce a powerful House Drop with the 77 patches from ANA Logue, in the style of the two EDM legends Alok and Tiesto. **by Ruben Mantel**



Facts

ANA Logue for Zampler

- ▲ 2.24 GB Soundbank
- ▲ 77 Patches
- ▲ 32 rumbling basses
- ▲ 24 Analog leads & synths
- ▲ 10 butter-soft pads
- ▲ 11 Drums & effects
- ▲ 1,001 Samples

ANA Logue for Akai MPCs

- ▲ 1,12 MB Expansion (optimized for MPCs)
- ▲ 77 Patches
- ▲ 32 creaking Basses
- ▲ 24 analog Leads & Synths
- ▲ 28 Pads & Atmospheres
- ▲ 10 butter-soft Pads
- ▲ 11 Drums & Effects
- ▲ 462 Samples
- ▲ Compatible with Akai MPC One, X, Live, Live mkII, Force, Touch, Software, Beats and Renaissance

77 PATCHES FOR FUTURE BASS, HOUSE AND D&B

From the Moog Matriarch to the Sub Phatty, from the Prophet to the Novation Peak - we have simply dug everything out of our studios that has analog circuits and can produce sounds ranging from wonderfully buttery-smooth to robustly rumbling. The result is 77 creaky patches in which you are guaranteed to find a bass and lead for every track. A total no-brainer for fans of analog synths! Our tip: Patch 15 "In Your Phase".

www.zamplersounds.com





1 Brainstorming

The right vibe is crucial. Start by listening to the various lead and synth patches in the sound bank. Try to **categorize** how the main synth should sound for the main melody of the drop. In our case, the creaky, aggressive lead preset **040: LD Disturbed Stack** suits the style of this workshop best. ❖



2 Melody

Unfortunately, even the best sound is no substitute for a good melody. House Drops thrive on concise, **catchy** sequences of notes. When creating the melody, try to strike a **balance** between simplicity and character. For example, it is typical to use the same notes in the first and third bars and only vary between the second and fourth bars. ❖



3 Layering

To make the lead even more powerful and voluminous, we layer the first sound with another one. Of course, the character of the sound must also be taken into account here, especially in the sense that it must be **compatible** with the previous one. In our case, we select the lead, which is only one preset up from the previous one **041: LD Donought**. ❖



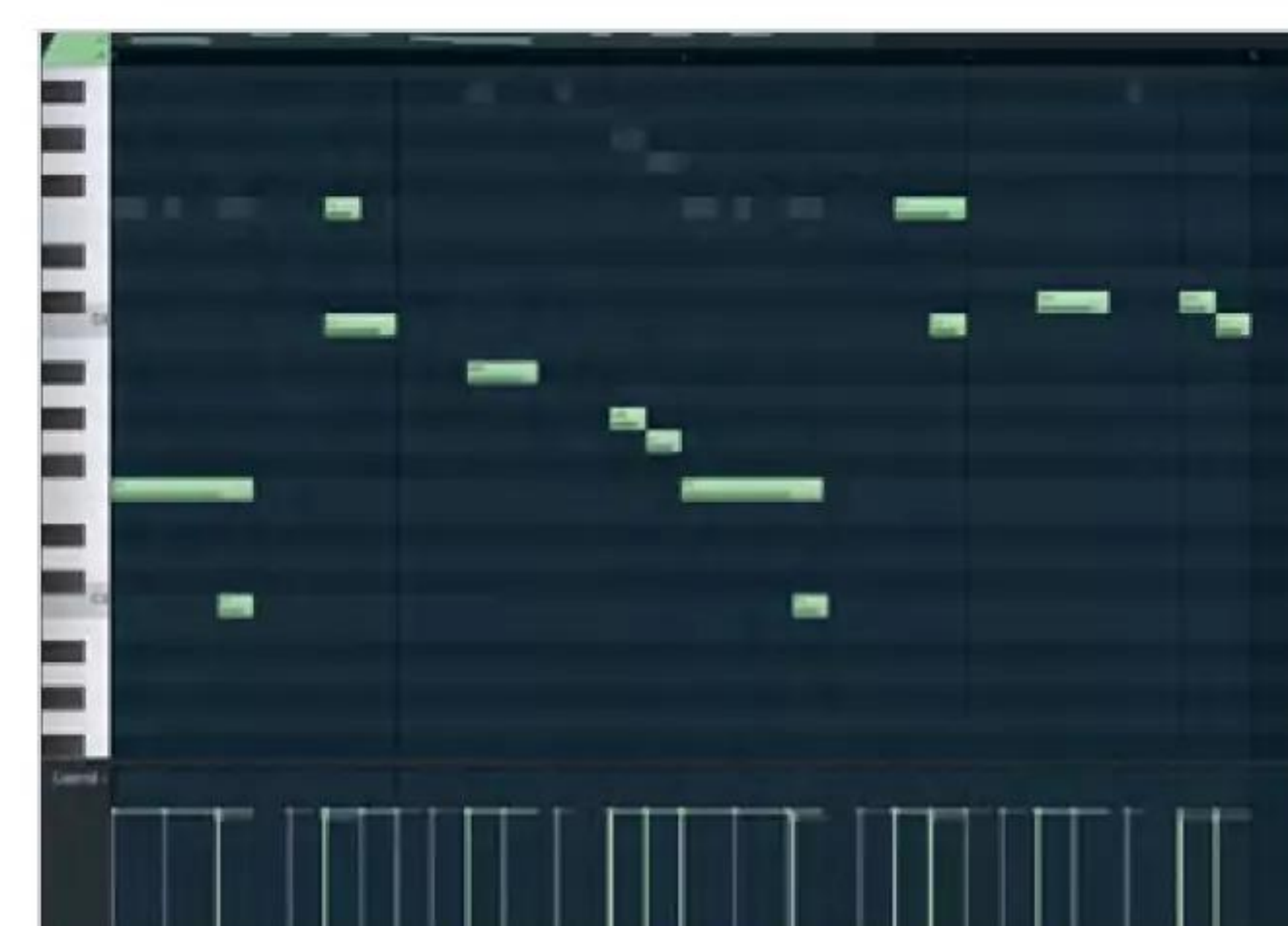
4 Kick and sidechain

As the rhythmic foundation, you naturally need a kick around which you can then build as a central element. Use a tonal kick in the key of the song with a lot of **punch**. Then, sidechain the two leads to the kick quite strongly, for example, with the plugin Kickstart 2 to create the first danceable feeling. ❖



5 Creaky bass

When we talk about Tiesto's style, a creaking bass is, of course, a must. Use the patch **015: BS In Your Phase** for this. The bass should then play the basic notes of the corresponding melody. However, make sure that you only emphasize certain passages of the melody with the bass so that the song can breathe and enough dynamics are maintained overall. ❖



6 Pitch bends

To give the creaking bass even more character, we make use of pitch bends. **Mono** is already activated in the preset used, but adjust the **Glide Control** to a value between **60** and **80%**. Then draw in the appropriate notes to create pitch bends that pull the listener into the next part of the melody. ❖



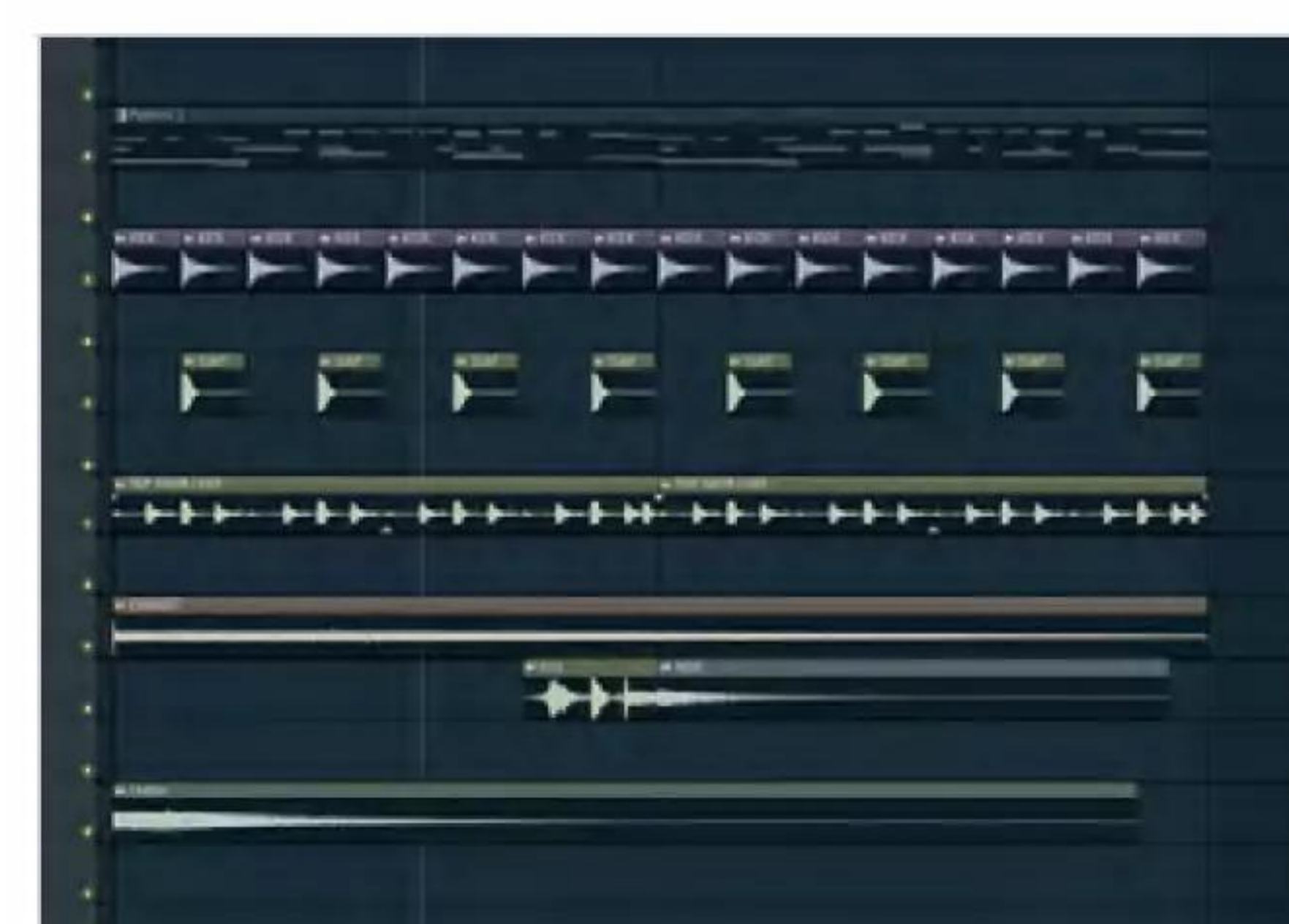
7 Subbass

The bass doesn't have to play alone either, but has a companion that mainly takes care of the low frequencies. Use preset **009: BS Da 808** and **increase** the **Attack** in the Amp Envelope **section** to **around 20%**. Cut the low frequencies of the previous bass with an EQ to put the two layers together like two pieces of a puzzle. ❖



8 Stabs

For the necessary pinch of Alok in our drop, we used patch **064: SY Gong**. This very percussive sound provides more dynamics and rhythm in the drop. Leave the sound tonally at the basic tone of the song and treat it like a percussive element. Use it to fill in the gaps in the melody to create a **Question-and-Answer Motif**. ❖



9 Refinement

The body of the drop has already been shaped. The last step is to fill it up with **Effects** and additional **Drums**. Use **Crash** and **Exhaust** for more power on the **first** beat, add a **Clap** on the **second** and **fourth** beats for more dynamics and use small fills and a top loop for a better groove. ❖

Test: Korg Keystage

Classic master keyboards with MPE, Poly Aftertouch and MIDI 2.0 are still rare to find. This is unfortunate because these features enable expressive playing and more extensive control of sound parameters. We tested whether Korg could implement this convincingly with the Keystage. by Jan Wilking

Features

- USB master keyboard
- 49/61 keys
- Poly aftertouch
- MIDI 2.0 standard
- Audio interface
- 8 rotary knobs with mini-display
- Arpeggiator
- Power supply via USB or optional power adapter
- NKS support
- Includes software package

Facts

Manufacturer: Korg
Web: korg.com
Distribution: Korg & More
Price: 449 Euro Keystage 49; 599 Euro Keystage 61

- ▲ Polyphonic aftertouch
- ▲ MIDI 2.0 with parameter display
- ▲ OLED display per control
- ▲ Stylish, compact design
- ▲ Internal USB sound card
- ▲ Ableton integration
- ▲ NKS compatible
- ▲ Free editor
- ▼ Keyboard clatter
- ▼ No audio inputs

Features:
Workmanship:
Price/Perf:
Overall:

Alternatives

- NI Kontrol S-49/S-61
from 618 Euro
native-instruments.com
- Arturia KeyLab MK3
from 449 Euro
arturia.com
- Novation SL MKIII
from 559 Euro
novationmusic.com



Keystage also has audio outputs for the integrated USB audio interface, but unfortunately no inputs.

Keystage is available with 49 or 61 keys and impresses immediately with its stylish design, compact dimensions, and moderate weight - perfect for the desktop studio! For the stage, we would probably switch to a more robust keyboard because during vigorous play, the case does flex a bit and some labels are also difficult to read in poor lighting.

USB audio interface

When Keystage is connected to the computer, it draws power from the USB connection. Alternatively, a power adapter can also be connected if you want to control external hardware synths or a mobile device such as a notebook, iPad, or iPhone with the Keystage. For this, Korg provides a holder that can be hooked into the back of the keyboard like a sheet music stand. There are also audio outputs to pass the sound from the connected devices to mixers or active monitor speakers, but no audio inputs - which unfortunately limits the usefulness of the internal USB sound card.

Polytouch keyboard

The newly developed keyboard by Korg is called Polytouch and, in addition to Velocity and Channel Aftertouch, also supports Polyphonic Aftertouch. Compared to the NI Kontrol MK3, the action is a bit

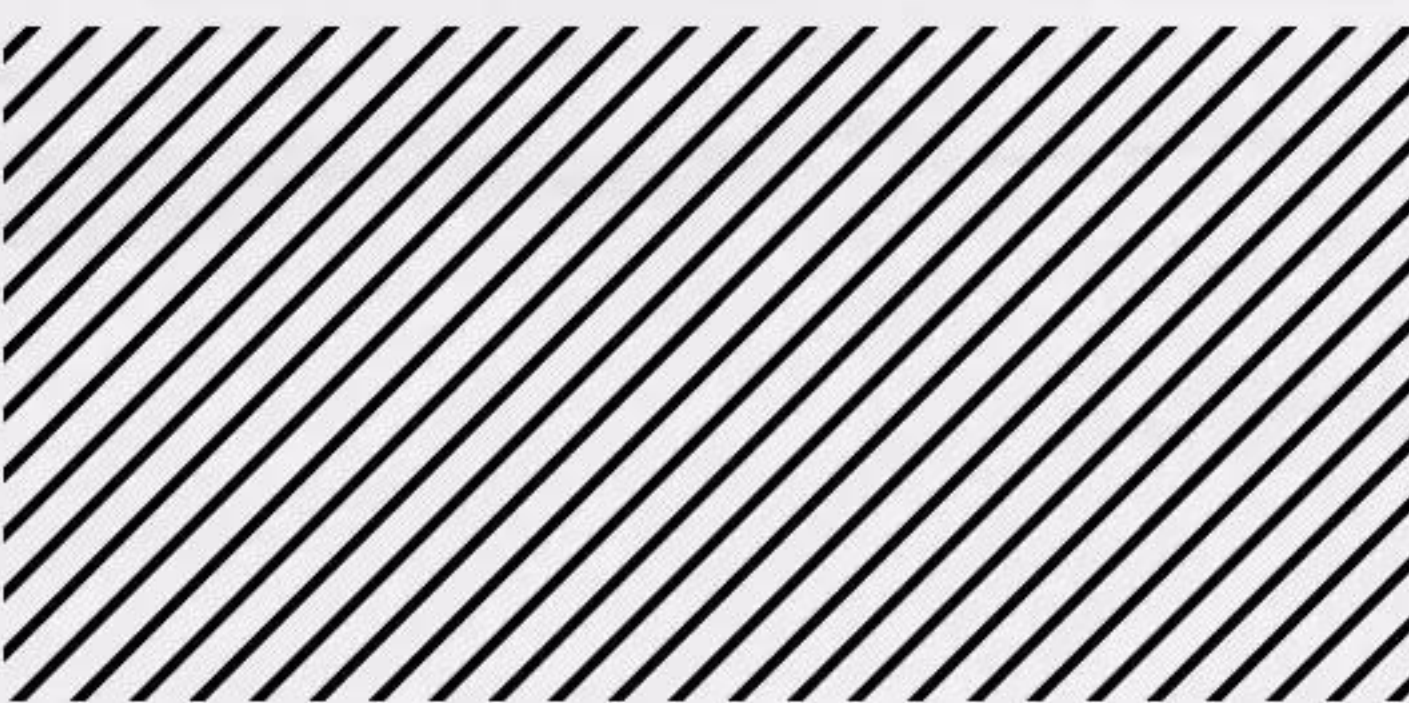
lighter and Keystage clatters more when playing, the Fatar keyboard of the NI keyboard offers a higher quality playing feel. Aftertouch works reliably. The sensitive emphasis of individual notes of a chord, one of the strengths of Poly-AT for expressive playing, also works smoothly on the black keys.

The 8 knobs are classic knobs with start and end points, not endless encoders. However, there are no value jumps because the knobs detect the parameter value and scale accordingly.

Arpeggiator with extras

Keystage has some interesting performance aids onboard, which can be quickly and clearly adjusted via the 8 knobs, each with its own OLED display. The Arpeggiator offers over a dozen adjustable parameters. You can not only set the playback direction, note length, and octave range, but also choose between different patterns. With the patterns, you can determine whether all notes are played or individual notes are periodically skipped. This can be combined with chance. This parameter offers values from 0 - 100% of whether a note of the arpeggio sounds. Ratchets, that is, fast repetitions, can also be activated, conveniently, also using aftertouch! The result is very dynamic arpeggios.

Keystage also has a Chord function with a variety of selectable chord types. It can be used in parallel with the arpeggiator, which further expands its field of application.



MIDI 2.0

Keystage supports MIDI 2.0, which enables bidirectional communication with plug-ins for displaying parameter names, and more. This works wonderfully, for example, with the standalone version of Korg Opsix. But even users of Ableton Live can look forward to deep integration. This involves the transport buttons, as well as the macro parameters of devices, including the display of the preset names and parameters. The display is not limited to simple values. Depending on the parameter, you can also read the selected types (such as the waveforms on the oscillator), or the values are displayed appropriately for the parameter in dB or %. This delivers a certain hardware feeling!

Verdict

Keystage is perfectly tailored for the desktop studio. It is stylish, compact, quite light, and has a built-in sound card. The keyboard, featuring Polyphonic Aftertouch, allows for expressive playing. The knobs feel good and, together with the OLED displays, offer direct and clear access to the parameters of the controlled software synthesizers thanks to MIDI 2.0 and deep Ableton integration and announced NKS integration. With the flexible Arpeggiator and Chord function, Keystage also has inspiring performance aids.

We did not like the overall playing feel and volume of the keyboard, but that's a matter of taste. ❄️

Image showing the Keystage keyboard with a QR code and the text 'Keystage overview' and 'More Info'.

Test: Nektar Panorama CS12

While there are hardware controllers directly from the manufacturer for Live and Studio One, users of Logic and Cubase have had to do without so far. Nektar aims to fill this gap with the Panorama CS12. Originally developed for Logic, this DAW controller now also supports Cubase, which we have tested extensively. **by Jan Wilking**

Features

- DAW channel strip controller
- For Logic Pro, Cubase/ Nuendo
- 100 mm motorized fader
- TFT display
- 11 illuminated RGB buttons
- 12 encoders in 4x3 grid
- Buttons for 26 DAW functions
- Zoom and tempo control
- TRS footswitch jack
- Dim: 370 x 180 x 45 mm

Facts

Manufacturer: Nektar
Web: nektartech.com
Distribution: Sonic Sales
Price: 366 Euro

- ▲ Motor fader
- ▲ 12 encoders for parameter control
- ▲ Large display
- ▲ Color coding display/ encoders
- ▲ Buttons for direct FX selection
- ▲ Full channel strip support
- ▲ No mapping required
- ▲ USB-powered

Features:	■■■■■■■
Operation:	■■■■■■■
Price/Perf:	■■■■■■■
Overall:	■■■■■■■

Alternatives

- Icon P1**
from 256 Euro
iconproaudio.com
- SSL UF1**
619 Euro
solidstatelogic.com
- Behringer X-Touch**
from 164 Euro
behringer.com



Despite the motorized fader and large color display, the USB connection is sufficient for power supply.

CS12 looks stylish and also feels good. The fader is made of plastic but is non-slip and firmly sits in its track. The 12 endless encoders on the right side have a pleasant rotation resistance and good spacing between them. The multi-colored illuminated soft buttons are a bit wobbly, but we quickly got used to them.

Installation is straightforward. No drivers are required, CS12 is directly recognized by the computer when connected via USB-C. The power from USB was even sufficient for the motor of the fader for us, otherwise you can also connect an additional power supply. After installing the Cubase support, CS12 is automatically recognized by the DAW.

Motorized fader for volume and parameters

On the left side, you will find the high-resolution 100mm motorized fader. The motor control works precisely and quickly and is audible, but not excessively loud. With the fader, you control the volume of the selected track, and it reliably springs to the level appropriate to the track level with each track change. If you click the SELECT button, you can also control any other parameter in the DAW with the fader in high resolution.

on, such as the Filter Frequency of a synthesizer plug-in. To do this, you just need to select the desired parameter with the mouse. This is particularly useful for recording automation such as filter sweeps or effect fades, as this works much smoother with the fader than with the mouse.

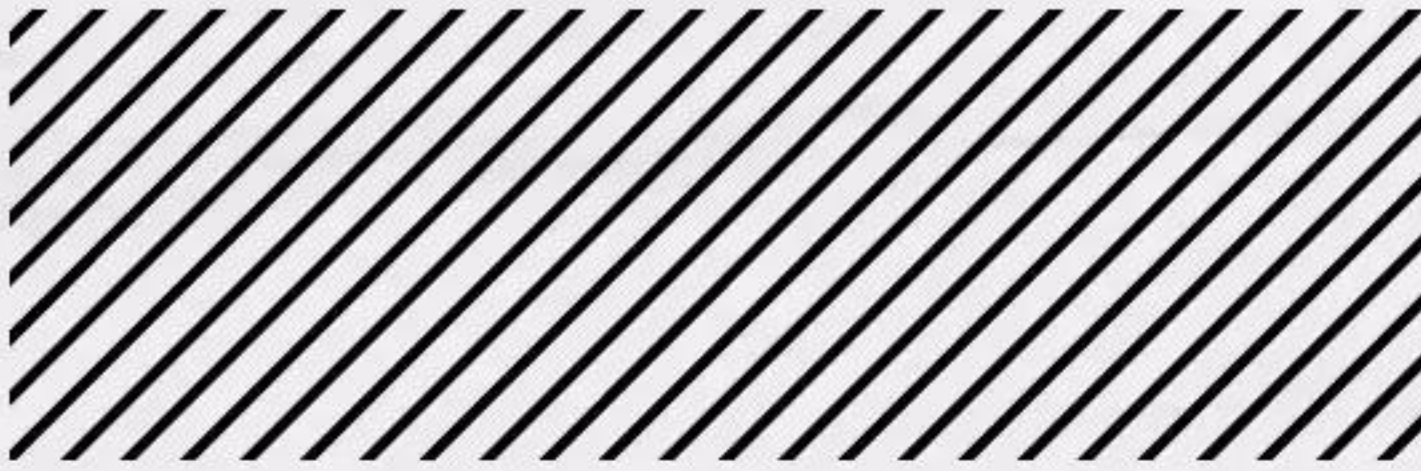
For the selected track, there is also a level meter, a pan control (which can also control any other parameter like the fader), as well as buttons for activating Recording, Solo, and Mute of the channel.

Color display and encoders

The large display shows the assignment of the 12 multi-colored illuminated encoders on the right side. Below, there are numerous buttons for transport control, marker selection, and other frequently used DAW functions. To the right of the display, there is a practical Zoom control for enlarging or reducing the view of the currently selected DAW area, as well as Tempo and a Data controls.

Direct access to channel strip and FX

An important part of the concept is the 11 vertically arranged soft buttons next to the display. These allow you to directly select the first 8 plug-ins on the track; alternatively the plug-ins in slots 9-16. After selecting the plug-in, its parameters are displayed on the screen and can be adjusted using the 16 encoders. This all works right away without further setup and also for



third-party plug-ins; and not just for Inserts, but also for Sends.

The Channel Equalizer in Cubase can also be directly controlled, with access to the parameters (Gain, Freq, Q, On/Off) of all four bands simultaneously. You can also operate Cubase's channel strip of with CS12. The controller recognizes what you have activated (such as Gate, Compressor) and you select the respective section with the color-matched buttons to display the parameters and assign them to the encoders.

You also have access to the Quick Controls, for example, for controlling the parameters of a synthesizer plug-in on the track. Thanks to Quick Learn, you can even create your own mappings. If you want to take this even further with your own naming of parameters and so on, you can also install the Nektarine software.

Verdict

Stylish, compact, simple installation, and with practical features: Panorama CS12 is an unconditionally recommendable DAW controller for Logic and Cubase, which, with 12 encoders, offers direct access to channel strip, effects, and plug-ins (even from third-party manufacturers) without additional mapping. The color coding of the display, encoders, and buttons facilitates the assignment and the double function of the motorized fader (volume or currently selected parameter) is a true blessing when recording automation. An all-round successful controller that will hopefully support other DAWs in the future. 🍷



Test: Mackie CR3-Series

Mackie aims to manage the balancing act between consumer sound, mixing tool, and Bluetooth speaker with the third generation of their Creative Reference series. The price-performance ratio is sometimes astonishing, and a test candidate stands out. **by Laura Emiliano**

The CR series of multimedia monitors for smaller budgets was launched 10 years ago and is now in its third edition with new features. The models are aimed at home studio users, music listeners, gamers, podcasters and content creators. The series is based on digital Class AB (CR3.5, CR4.5) and Class D (CR5BT) power amplifiers and is graded according to speaker chassis size. All models have a 0.75 inch dome tweeter. There is also a “BT” version of the 3.5 and 4.5 models featuring Bluetooth 5.0.

We tested the CR3.5BT, CR4.5, and CR5BT variants. All speakers have an active box with an amplifier and all control options. The second passive box is connected via speaker clamps and cable. A new feature is the “Location Switch” to compensate for sound differences at greater listening distances. “Desktop” is for near-field placement, ‘Bookshelf’ optimizes playback at a greater distance. The “L/R” switch is used to swap the stereo pair and there is a power switch. On the front, there is a Tone control, which continuously changes the sound between Work and Play. Work is the linear operation as a studio monitor, Play offers a bass and treble boost like in hifi systems including a loudness function. The power amplifier delivers 50 watts peak for the smaller models, the CR5BT model features 80 watts peak. Cushion pads for placing the monitors are included.

A digital input for sound card signals would have been desirable in view of the digital output stages to avoid additional conversion. With the Bluetooth models, digital signals can at least be played in directly, even if Bluetooth codecs have not yet achieved loss-free transmission.

CR3.5BT

The background noise behavior is discreet, a slight hiss is only perceptible with the ear directly at the tweeter. The measured frequency curve largely corre-



Overall, Mackie has put together a package with the new CR monitors that allows proper monitoring and music listening.

sponded to Mackie’s presentation. In linear operation, the frequency response varies by around +/- 5dB above 100 Hz. Not much is to be expected below 70 Hz. The “Desktop” setting offers a more linear reproduction at close range, while “Bookshelf” results in a slight boost below 250 Hz and above 5 kHz. At low volumes, the speaker sounds homogeneous and the stereo image is decent. At higher volumes, the hi-hats can pinch the ear. Bass is, naturally, not as present.

The CR3.5BT is well suited for anyone looking for a compact set of active loudspeakers for the near-field range to make rough signal assessments or to use them for gaming and listening to music at manageable volumes.

CR4.5

With the 4.5 model, enthusiasm spreads: voices are more vivid in the room, the bass seems more tangible. The decay behavior of short impulses remains well defined. The monitors benefit from being positioned close to the wall in order to achieve a “natural” bass response. Even higher listening volumes remain pleasant in terms of frequency reproduction. The CR4.5 is suitable for far more than just multimedia - not only for gamers and occasional listeners, but also for discerning tastes.

CR5BT

The CR5BTs go lower in the frequency range and deliver more fullness. The-

Features

- Two-way active-passive monitor system
- 0.75 inch silk dome tweeter (all models)
- 3.5 inch (CR3.5BT)
- 4.5 inch (CR4.5)
- 5 inch woven woofer (CR5BT)
- 70 Hz - 20 kHz (CR3.5BT)
- 55 Hz - 20 kHz (CR4.5)
- 51 Hz - 20 kHz (CR5BT)

Facts

- Manufacturer:** Mackie
- Web:** mackie.com
- Distribution:** Hyperactive
- Pair prices:** 99 Euro (CR3.5), 129 Euro (CR3.5BT), 139 Euro (CR4.5), 159 Euro (CR4.5BT), 219 Euro (CR5BT)

- ▲ Sound
- ▲ Near-field playback
- ▲ Versatile use
- ▼ Boost not adjustable
- ▼ Hissing highs in play mode

- Features:** ████████
- Workmanship:** ████████
- Sound:** ████████
- Total:** ████████

Verdict

The CR3.5BT are particularly useful for near-field reproduction at low volumes. The CR4.5 are recommended for those who focus on mixing and want the most balanced sound possible when listening to music. The CR5BT deliver more “muscle” in the bass range. For mixing, however, the CR4.5 remains a clear favorite. 🍷



Alternatives

- ADAM Audio T7V**
190 Euro
adam-audio.com
- Yamaha HS5**
164 Euro
yamaha.com

Test: Twisted Electronics TWISTfm

TWISTfm is a polyphonic FM synthesizer based on the sound chips used in the Sound Blaster cards. The raw digital sound is processed with an analog multimode filter for each of the 8 voices, two layers enable exciting combo sounds. The integrated touch controller, which enables intuitive control of various parameters in real time, is also interesting.

by Jan Wilking

Features

- 8-voice FM synth
- 2x YM262 FM chip
- Analog multimode filter
- MPE voicing modes, polyphonic aftertouch
- Ribbon Controller
- Polyphonic sequencer

Facts

Manufacturer: Twisted Electronics
Web: twisted-electronics.com
Distribution: Retailer
Price: 1.189 Euro

- Independent hybrid sound
- Analog multimode filter
- Direct operation
- Dual-layer
- Freely assignable LFO
- Ribbon controller
- Arpeggiator/sequencer
- Stereo options
- Fully MIDI controllable
- Audio inputs
- Fairly high price (boutique)

Sound: [5 red squares]
Operation: [5 red squares]
Price/perf.: [4 red squares, 1 white square]
Rating: [5 red squares, 1 white square]

Alternatives

- Korg Opsix
595 Euro
korg.de
- Elektron Digitone II
975 Euro
elektron.se
- Jomox Mod FM Desktop
1.199 Euro
jomox.de



The FM synthesis has a reputation for being unmanageable, which is mainly due to the large number of parameters, the complex connections of the oscillators (or operators) and the often drastic and difficult to predict changes in sound even with small changes in values. However, the manufacturers of FM synthesizers have never really bothered to make FM synthesis manageable. DX7 & Co. had to make do with two rows of buttons and a single data fader. The macro controls on the Yamaha DX200 were a first step in the right direction, but that was probably too early and the music world was not yet ready for a FM revival. However, clever third-party providers and boutique manufacturers have tried in recent years to make this powerful form of synthesis popular again with knob-equipped controllers for the Yamaha Reface DX or small desktop synthesizers such as the PreenFM. And the innovative Swedes from Elektron also showed new approaches for FM-based sound generators with Digitone and Model:Cycles.

Successor of the MEGAfm

A few years ago, Twisted Electronics also contributed an interesting FM synthesizer, the MEGAfm. This was not really a surprise, as the French are known for integrating chips from old home computers and game consoles into their sound generators. And many of these old chips

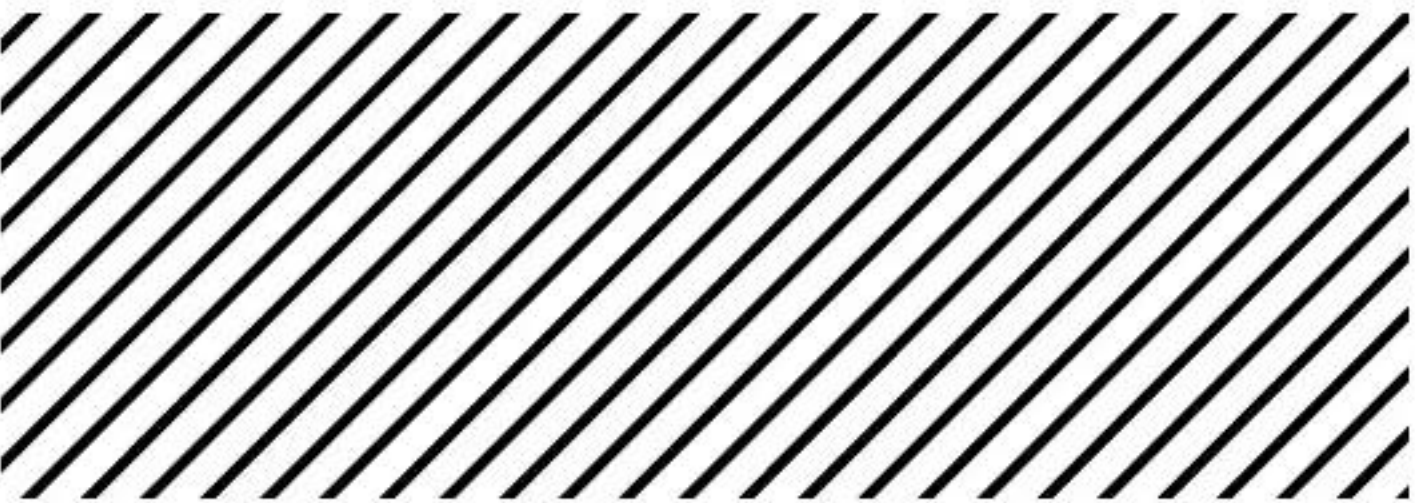
used FM synthesis to create sounds. The MEGAfm contains two Yamaha YM2612 chips known from the Sega Megadrive/Genesis game console, whose internal converters with their low resolution also determine the basic sound aesthetics: MEGAfm therefore covers the rough and unpolished side more and is less suitable for the well-known crystal-clear sounds of modern Yamaha FM synthesizers.

Soundblaster chips

In comparison, TWISTfm has a different basis: the YM262 FM sound chip is used here in conjunction with the YAC512 stereo digital-analog converters. Some of you may remember the legendary Soundblaster sound cards and the soundtracks of various computer games that were partially programmed on the identical sound chip and achieved cult status. The whole thing is combined with an analog multimode filter for each of the up to 8 voices. In this respect, TWISTfm is not a replacement, but rather an alternative to the unpolished sound of MEGAfm.

Stylish and compact

With dimensions of approx. 34 x 17 x 7 cm, the compact synthesizer fits on any desk-



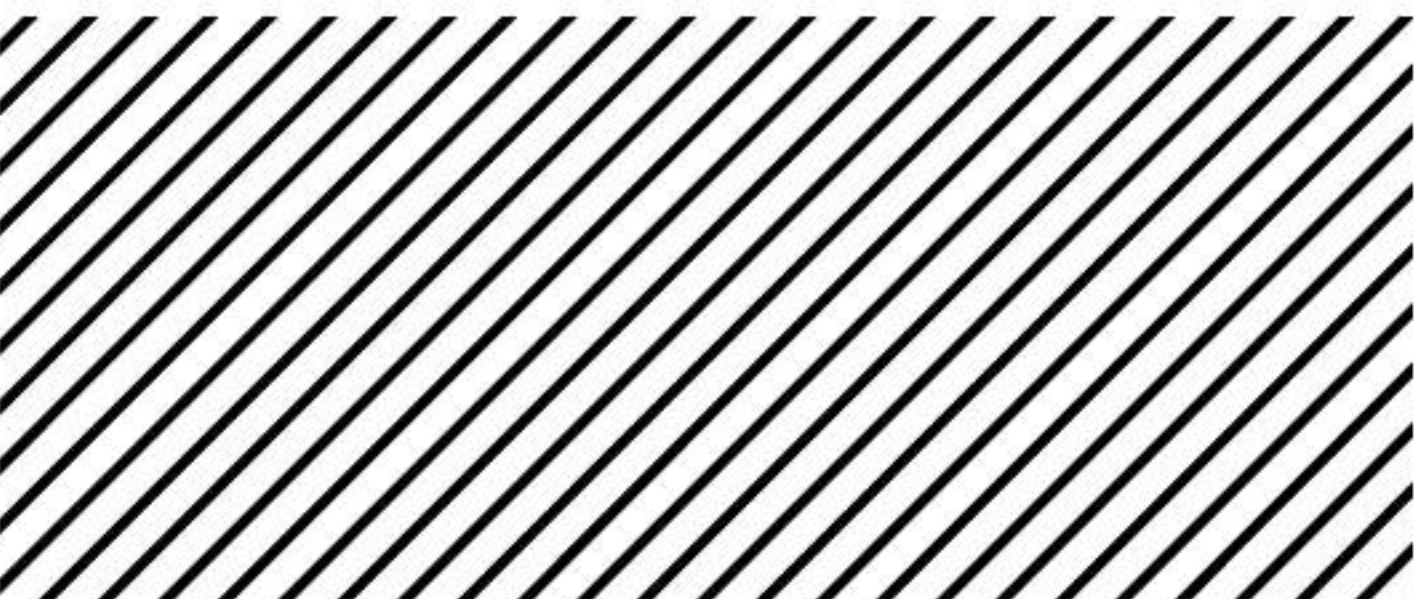
top and in any gig bag. The black metal housing looks stylish and classy and stands securely on the table with a weight of 1,3 kg.

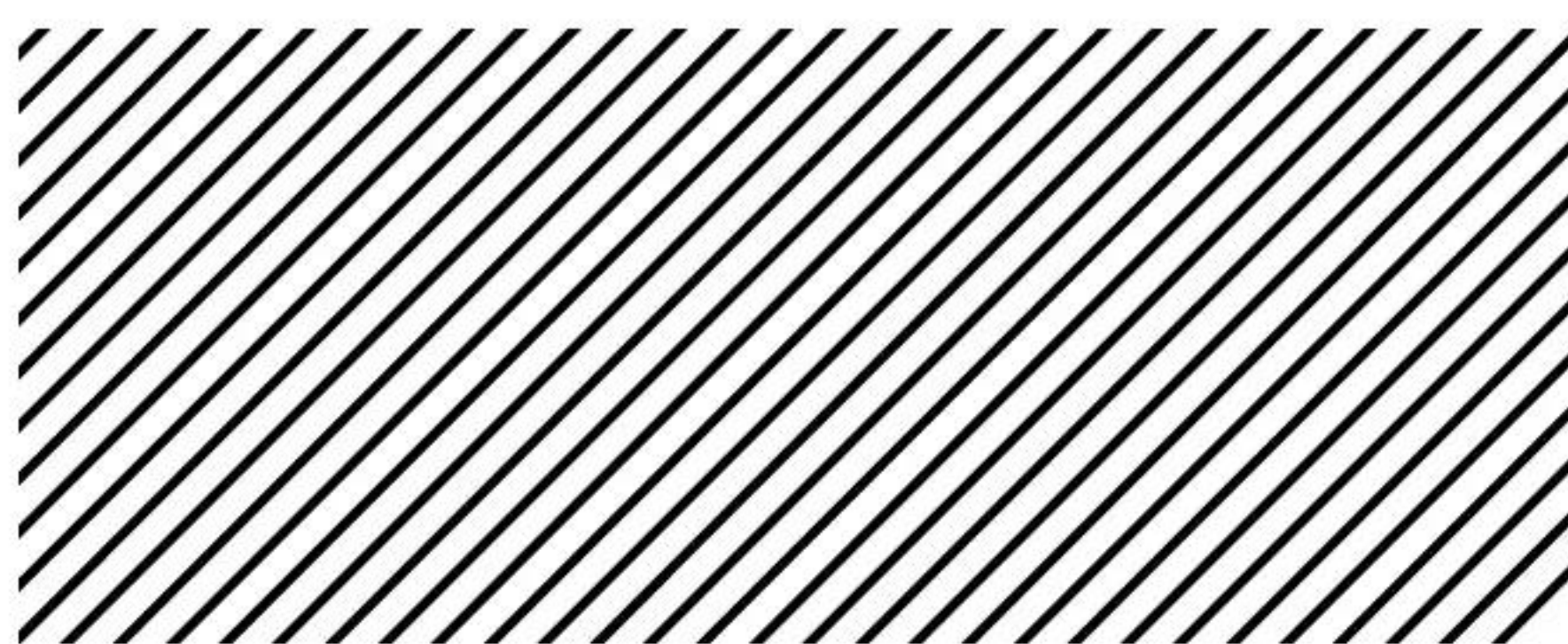
Unlike other FM synthesizers, on the TWISTfm, nearly every parameter of the sound production can be accessed directly and without switching and double assignments. But this also means that 79 (!) faders had to be accommodated on the compact surface. They are therefore inevitably a bit smaller and placed close together, but they offer pleasant resistance and can still be operated quite well, at least with medium-sized hands. We also like the haptics of the buttons with noticeably tactile clicks, as well as the clearly visible status indicators with an LED for each button. Overall, we can confirm that TWISTfm is fully suitable for stage use.

Stereo and full MIDI control

All connections are located on the back. You can pick up the audio signal via two mono jack outputs, and next to them is the stereo headphone output. Both chips can output their voices together on a mono output or alternately left and right through the two mono outputs, for exciting stereo effects. Two audio inputs are also available for processing external sound generators. The small synthesizer is controlled via the full-size DIN MIDI input. The additional MIDI port can pass signals through or be used as an output. The latter is particularly interesting because the faders send and receive MIDI controller data. This allows the TWISTfm to be completely automated in the DAW!

Alternatively, the USB port can also be used to transmit MIDI. Unfortunately, firmware updates and import/export of sounds cannot be done via this, you have to use the supplied SD card (a small USB card reader is also included).





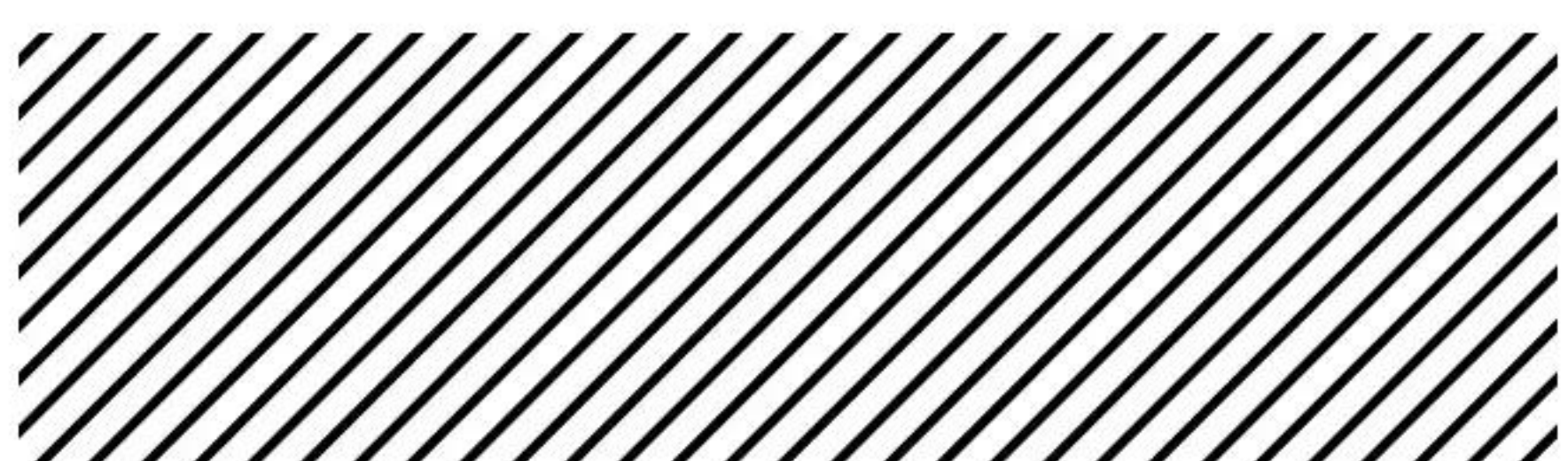
FM with 4+2 operators

Since the TWISTfm has two YMF262 FM chips, each with 4 voices, the small synthesizer is a total of 8 voices. The sound generation offers four operators that can be linked via five predefined algorithms. Thanks to layered FM synthesis, there is also a 2-OP sound generator available, which simplifies sound creation. A reminder: the original FM father DX7 has 6 operators and 32 algorithms, allowing for more complex sounds. The advantage of limiting the number of operators per layer is that it makes everything clearer and easier to control. Since each operator can be a sound generator or modulator depending on the selected algorithm and has different waveforms and its own envelope, the sound possibilities are very extensive with 4 or even 2 operators, which the included presets impressively demonstrate.

Flexible algorithms with feedback

At the top left, you select from the available algorithms: five links for the 4OP layer and two links for the 2 remaining operators. This is done, like almost everything on the TWISTfm, directly with its own knob. All algorithms are printed large on the housing and equipped with their own LED, so you can see immediately which algorithm is currently selected. With another potentiometer you control the feedback, i.e. the strength with which operators 1, 3 or 5 are frequency modulated with themselves.

Each of the 6 (4+2) operators can be adjusted using 7 faders each. There are not only sine waves available, but 7 additional waveforms to choose from – also printed on the housing with their own LED. The multiplier is important, i.e., the frequency ratio in comparison to the other operators. This sets the stage between deep bass and high lead, harmoniously beautiful or metallic-sharp. The volume control also has a more important function than with classic subtractive synthesizers, as it determi-



You can also integrate external sound generators via the two audio inputs.



The analog multimode filter perfectly complements the digital FM synthesis.

nes the strength of frequency modulation depending on the chosen function of the operator.

For dynamic progressions, each operator has an ADSR envelope for volume or modulation progression. This direct access to all important parameters of all operators at the same time is a rarity in the field of FM synthesizers and invites experimentation.

Analog multimode filter

The analog multimode filter with its own envelope perfectly complements the powerful and assertive digital vintage sound of the Yamaha chips. 15 different filter types are available here. There are two different resonance behaviors (an aggressive MS20 mode and a creamy liquid mode), and a heat circuit can provide additional saturation and distortion. So in addition to the typical hard digital sounds, fat Hoover leads and nice dark pads are no problem, always paired with a lot of movement through the various modulation options.

3 flexible LFOs

In addition, there is another envelope and three LFOs that can basically modulate any other fader/parameter without detours. It is also possible to program variations (skips & flips) or record your own waveforms using the ribbon controller. These complex modulation options are particularly exciting in combination with the various MPE voicing modes and polyphonic aftertouch, with which the TWISTfm can be played very expressively. Combined with the large ribbon controller, which can be used as a mini keyboard or for pitch bends, modulation and even flexible preset morphing, TWISTfm presents itself as a real performance synthesizer when jamming in the rehearsal room or in the club!

Sequencer, arpeggiator and more

And the performance functions do not stop there. TWISTfm also has a flexible arpeggiator with various playback directions and programmable pauses and slides. A polyphonic sequencer with up to 128



With the ribbon controller, you can morph between presets or create your own LFO waves.

steps is also on board, which can be triggered and transposed via the keyboard. A scale function prevents wrong notes, and the chord function makes it easier to play chords. All of this can also be combined with the split zones to not only play 2 sounds, but also to change the chord and root note using the keyboard zone. It's amazing what the developers have packed into this small box!

Not a sweet spot synthesizer

However, you should also be aware before buying that an FM synthesizer, unlike a subtractive analog synthesizer like the Prophet-5, is not purely a sweet spot sound generator. If you just start tweaking without consideration (outside of the filter section), the whole thing can quickly sound horribly unmusical or end up in digital noise. Therefore, at least rudimentary basic knowledge of FM synthesis and the linking of operators is of great advantage if you do not want it to end in an experimental noise orgy.



More info

VERDICT

With a rich array of controls, TWISTfm offers direct access to all FM synthesis parameters, inviting you to experiment. Based on old Yamaha chips, the synthesizer may sound crunchy and vintage, but due to the excellent analog filter, the sound palette goes far beyond the typical chip sounds and allows not only classic FM sounds with a lot of lo-fi charm but also exciting hybrid sounds in the style of a PPG Wave. The raw and powerful sound with a lot of character is an interesting addition to the high-gloss sound of modern synths and plug-ins. The extensive modulation options with three super flexible LFOs provide plenty of movement, and the MPE support, ribbon controller, arpeggiator, and sequencer make TWISTfm an excellent performance synthesizer for jamming in the rehearsal room or club! 🎹

Test: Behringer Wave

Behringer Wave is a replica of the first wavetable synthesizers, the PPG Wave series. The housing, kept in a distinctive blue, is somewhat more compact and the connections are somewhat more modern, but both sound generation and operation are almost identical to the original – which is not only an advantage. by Jan Wilking

Features

- 8-voice synthesizer
- 49 keys
- 30 wavetables each with 64 waveforms
- 64 user wavetables, 32 transients
- 200 preset sounds
- Analog low-pass filter
- Dual arpeggiator and polyphonic sequencer

Facts

Manufacturer: Behringer
Web: behringer.com
Price: 599 Euros

- Characteristic hybrid sound
- Unique wavetable sound generation
- Powerful digital sound
- Very good analog filter
- Import of samples
- Split/Layer/Unison
- Polyphonic step sequencer
- Individual outputs
- Optional sound optimization
- Data encoder/OLED display
- Affordable price
- somewhat fiddly operation

Operation: [visual bar]
Sound: [visual bar]
Price/perf.: [visual bar]
Rating: [visual bar]

Alternatives

- Korg Modwave
705 Euros
korg.com
- Modal Argon8
699 Euros
modalelectronics.com
- Waldorf M / Blofeld
from 515 Euros
waldorfmusic.com



With the Wave, Behringer presents its third polyphonic synthesizer. After the 12-voice debut synthesizer Deepmind and its derivatives, numerous monophonic and paraphonic synthesizers from Behringer were released on the market, but last year with the Oberheim replica UB-Xa, another polyphonic synthesizer was introduced with complete equipment including its own filter for each voice.

Hybrid wavetable synthesizer

On the timeline, Behringer has now reached the first digital sound generators. The LMDrum is inspired by the LinnDrum, one of the first sample-based drum machines. And the Wave is unmistakably a replica of the legendary PPG Wave, one of the first synthesizers with digital sound generation and the progenitor of wavetable synthesis, which is more popular than ever today thanks to EDM & Co. The special feature of the Wave, in comparison to other current wavetable synthesizers like Korg Modwave or Serum, is the 8-bit resolution for the powerful base sound with digital artifacts and its taming through an

analog low-pass filter. We have extensively tested one of the first available devices to see whether this is enough to integrate the Waves synthesizer into your studio, even given its bulky operation.

PPG Wave

I must confess that I have long been a fan of the sounds of the PPG Wave – initially, however, completely unconsciously. The sounds that fascinated me in early productions by Trevor Horn (Propaganda, FGTH), Depeche Mode, or NIN, I had attributed to other synthesizers. I suspected analog classics like the Jupiter-8 for the punchy basses and floating strings, and more digital sounds like Synclavier, Fairlight, or DX7 for transparent and hard digital sounds.

Compact housing from the Deepmind

For the housing, Behringer is using recycling, it corresponds to the Deepmind 12 in the keyboard version. The slightly inclined control panel and thus the entire device is therefore not very deep, which makes the entire synthesizer quite compact. This facilitates installation in smaller

studios and transportation to gigs. And due to the limited number of controls, the knobs and buttons are also large enough and have sufficient spacing between them, so the compact format does not pose a disadvantage when tweaking sounds. The housing is made of robust metal, cleanly processed, and the knobs and buttons feel good and respond reliably. The only downside: the whole thing doesn't look really chic in the rather squat housing, although the faithful blue paint doesn't help much.

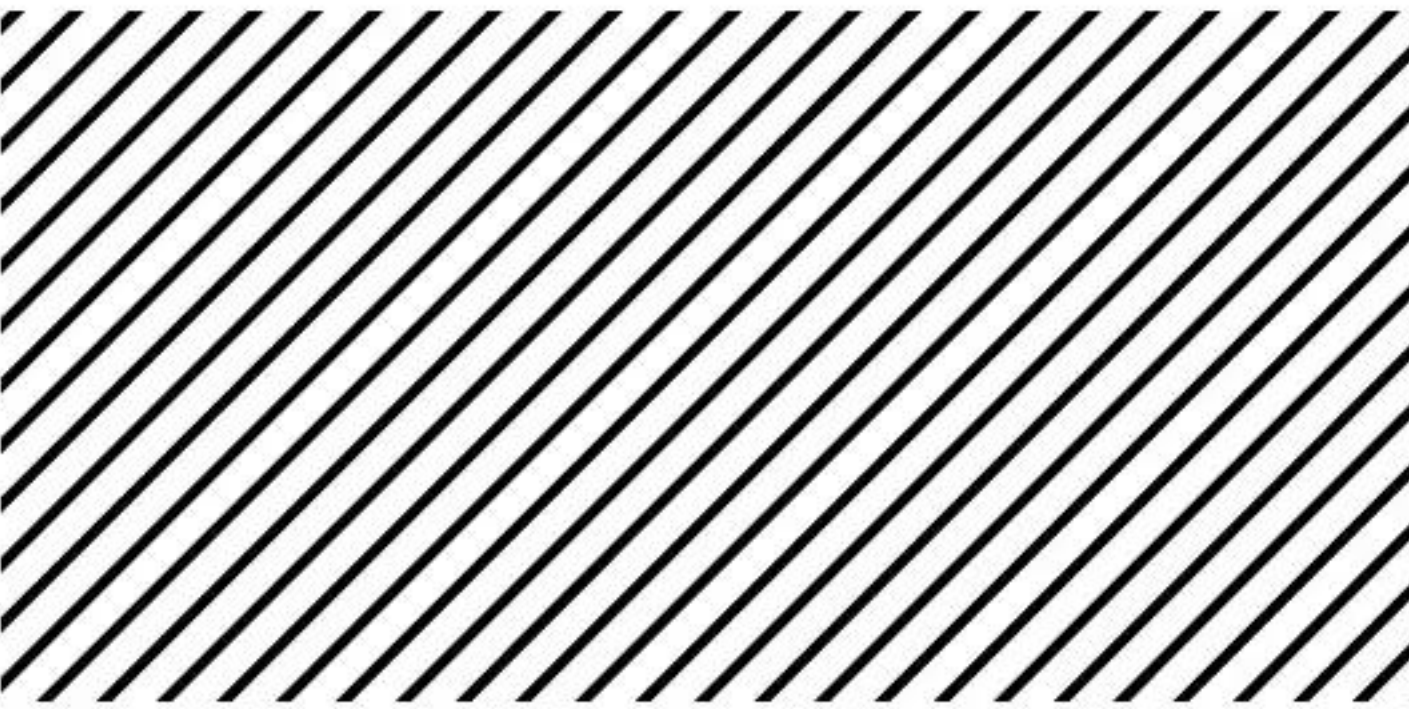
49 keys with aftertouch

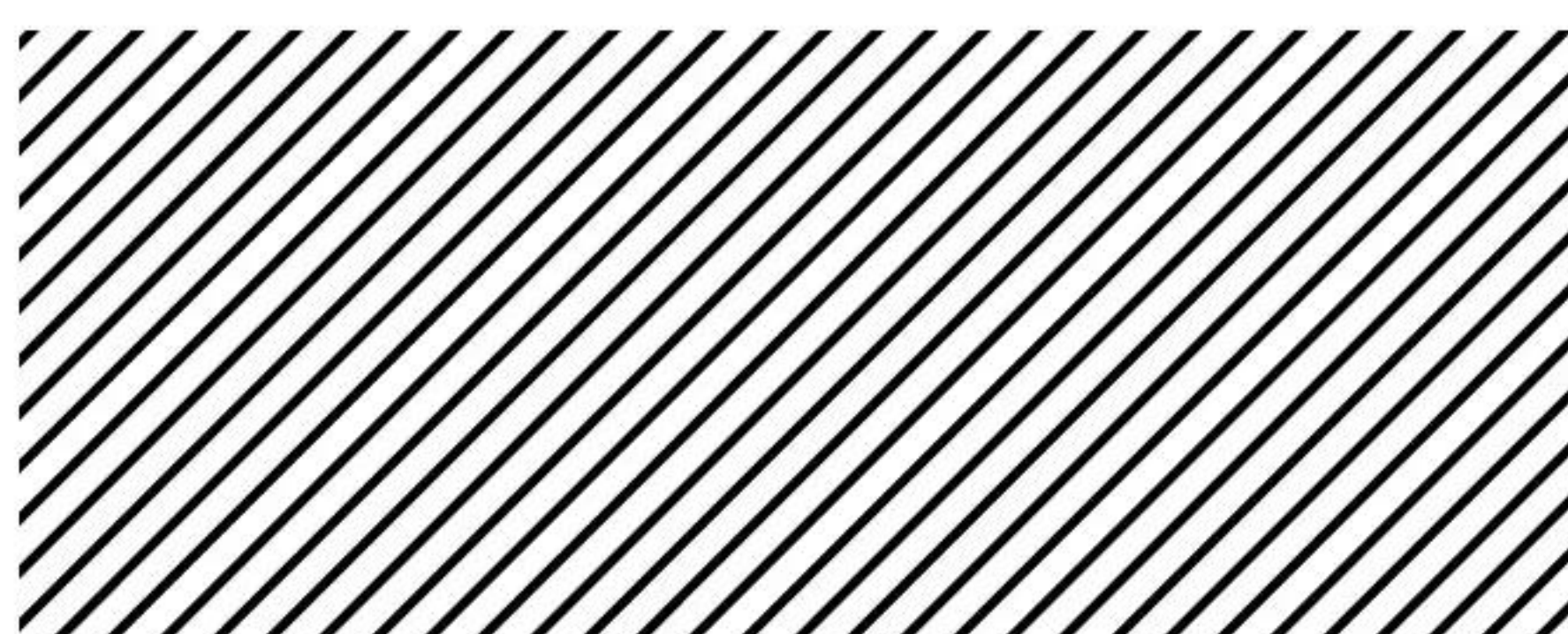
The keyboard also seems to have been taken from the Deepmind 12 and is of average quality. Velocity is not implemented very nuanced in the softer range, the four octaves are more designed for more robust playing. The aftertouch also reacts quite imprecisely, but at least the keyboard has this feature (albeit only monophonically). Playing on a good master keyboard with 5 octaves can significantly enhance the sound, but fundamentally the keyboard is fine.

Plenty of connections

The rear side is pleasingly connection-friendly, where you find no less than 17 large jack sockets. Eight of these are intended as

Clear, bell-like sounds or harsh metallic tones, but also floating pads or experimental effects – sonically, the Wave is very flexible.





individual outputs for the individual voices of the Wave. This could become particularly interesting if the Wave receives a multitimbral mode like the PPG 2.3 through a firmware update, allowing the individual sounds to be edited separately. At the moment, it's more for experimental minds who want to reverberate or delay individual notes within a chord or arpeggio.

There is also a regular stereo output and a headphone jack. Additionally, there are CV/Gate inputs and Sync In/Out to connect the Wave with analog equipment. There are also two inputs for expression and sustain pedals as well as a MIDI trio. Also worthy of mention is the internal power supply.

USB for MIDI and app

Through the USB connection, not only MIDI is transmitted, but also the connection to the Synthtribe app is established. And this app fulfills several functions with the Wave. Various system settings can be made, sequences can be exported, edited, and imported. The app can also serve as a librarian for your own sounds. The best part is: you can also import your own wavetables and short samples (transwaves) into the Wave via the app. However, Behringer has remained close to the original here, and since storage space was scarce and expensive at the time, only very short samples fit into the Wave. They serve primarily for the beginning of a sound, the transients. Naturally, we would have wished that with today's cheap chips with multiples of the storage capacity, longer samples and wavetables could also be imported.

Operation like the original...

Even in operation, Behringer has been a bit too precise in terms of originality for our tastes. For analog classics like Juno-60 or OB-Xa, which offer direct access to sound generation with lots of knobs, this makes sense. For the first digital synthesizers, the possibilities of making the digital component operable were still limited. There were no large displays, and certainly no touchscreens or buttons and controls for direct operation.

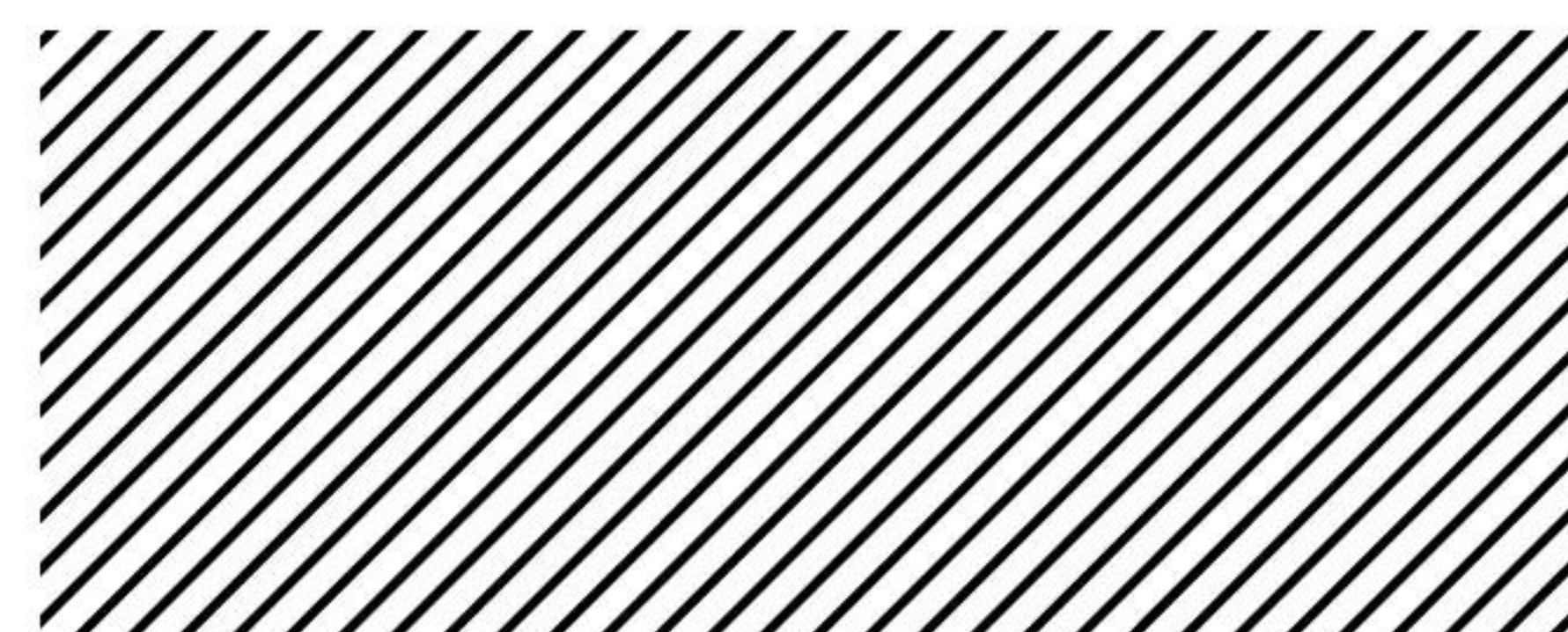
...via computer keys

That's why developers had to come up with alternatives, and the PPG Wave had a quite intelligently solved operation for the time. With the right 8 buttons, you select various categories like Program,

Digital, or Tuning. The display then shows you 8 parameters from this category simultaneously. With arrow keys, you select one of these parameters and can then enter the desired value via a 10-key keypad. After a little familiarization, this works quite well, even if a direct selection with buttons above/below each parameter and subsequent input via data entry fader like on the ESQ-1 or even better endless knobs above/below each parameter for direct change (like on the ASM Hydrasynth) would have been even nicer.

Many abbreviations

The biggest problem with the operation, in our view, is the numerous abbreviations. You might eventually remember that, for example, DTF stands for Data-Transfer. And luckily, in this case, the meaning of the numbers 0-9 is printed in a short form on the housing - even if you have to be extremely careful because with a 9 you save the painstakingly created sound, with an 8, on the other hand, you reset the



with a small push encoder. An additional small OLED display not only serves as a real-time oscilloscope but can also display the names of the wavetables. Unfortunately, this display is not used to display the names of the presets, parameters, or their values in plain text. Here remains only the hope that Behringer will add additional functions through an update.

23 knobs for direct access

For those who have already lost interest in Wave, there are still a lot of positive aspects that have prompted me to integrate a new synthesizer into my studio after a long time.

There is, for example, the densely packed left side of the Wave. It offers direct access to filters, envelopes, and LFOs, as well as the wavetable position and modulation, with 23 rotary knobs like a classic analog synthesizer.

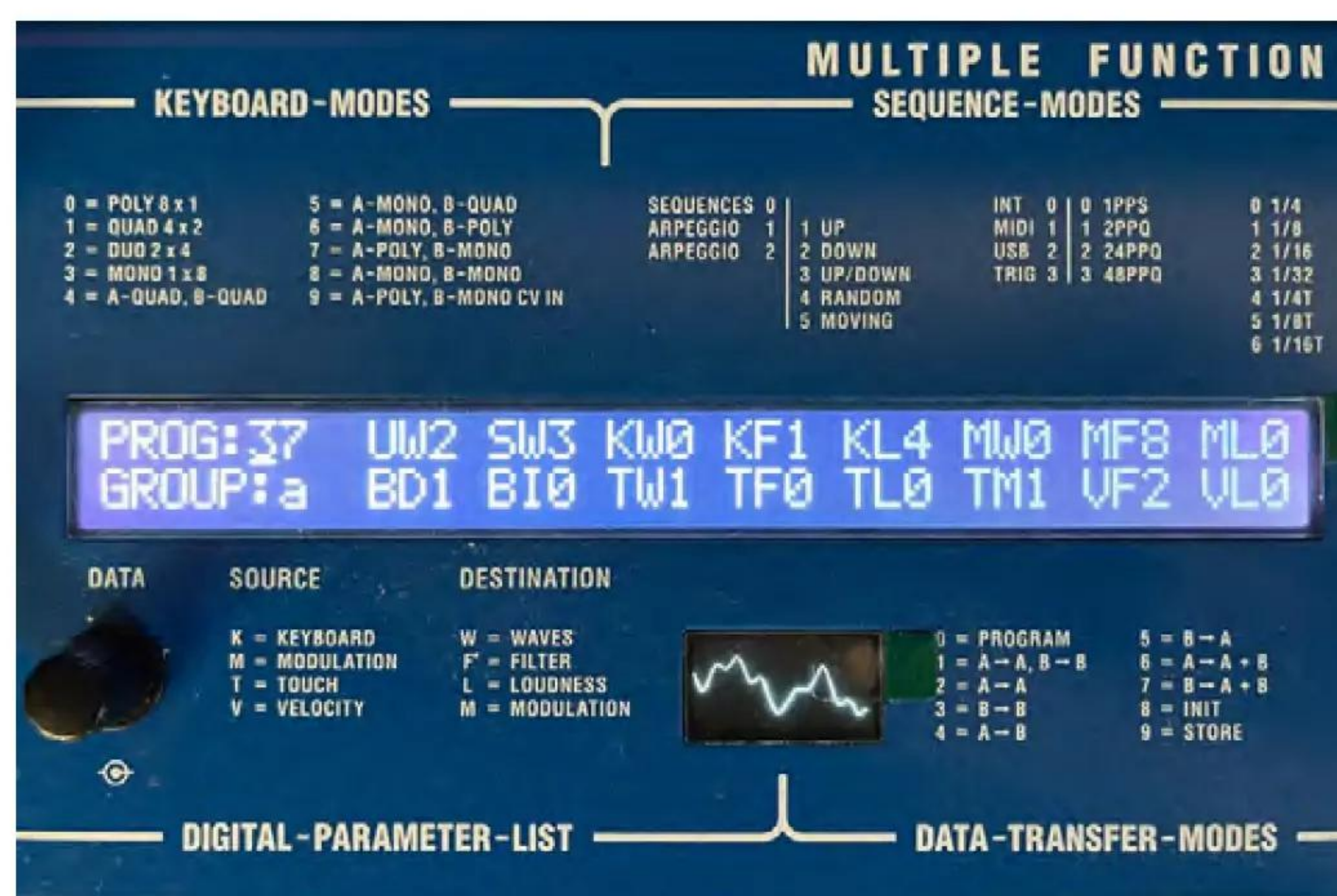
Waveforms

Every sound is based on two oscillators. Both oscillators must refer to the same wavetable (different wavetables per oscillator were only introduced with the Waldorf Microwave), but can play different waves from it. Because a wavetable in the Wave consists of 64 different waveforms that are virtually strung together. Depending on the selected start point, a different waveform and thus a different sound plays. Since the classic waveforms like sawtooth,

triangle, and square are also found at the end of each wavetable, you can theoretically also recreate an analog synthesizer, e.g. combine a sawtooth with a square tuned one octave lower.

Wavetable modulation

The whole thing gets exciting when you don't just select a wave statically, but move through the different waveforms with an LFO or envelope. This results in the typical PPG sounds, as known from productions by Trevor Horn (Propaganda, Frankie Goes To Hollywood, etc.) or Depeche Mode („A Broken Frame“) or Nine Inch Nails („Pretty Hate Machine“). Clear, bell-like sounds or harsh metallic tones, but also floating pads or experimental effects – the Wave is very flexible in terms of sound and sounds surprisingly modern considering its age. The powerful lo-fi digital sound provides very assertive and characteristic sounds that never appear static or sterile despite the digital oscillators.

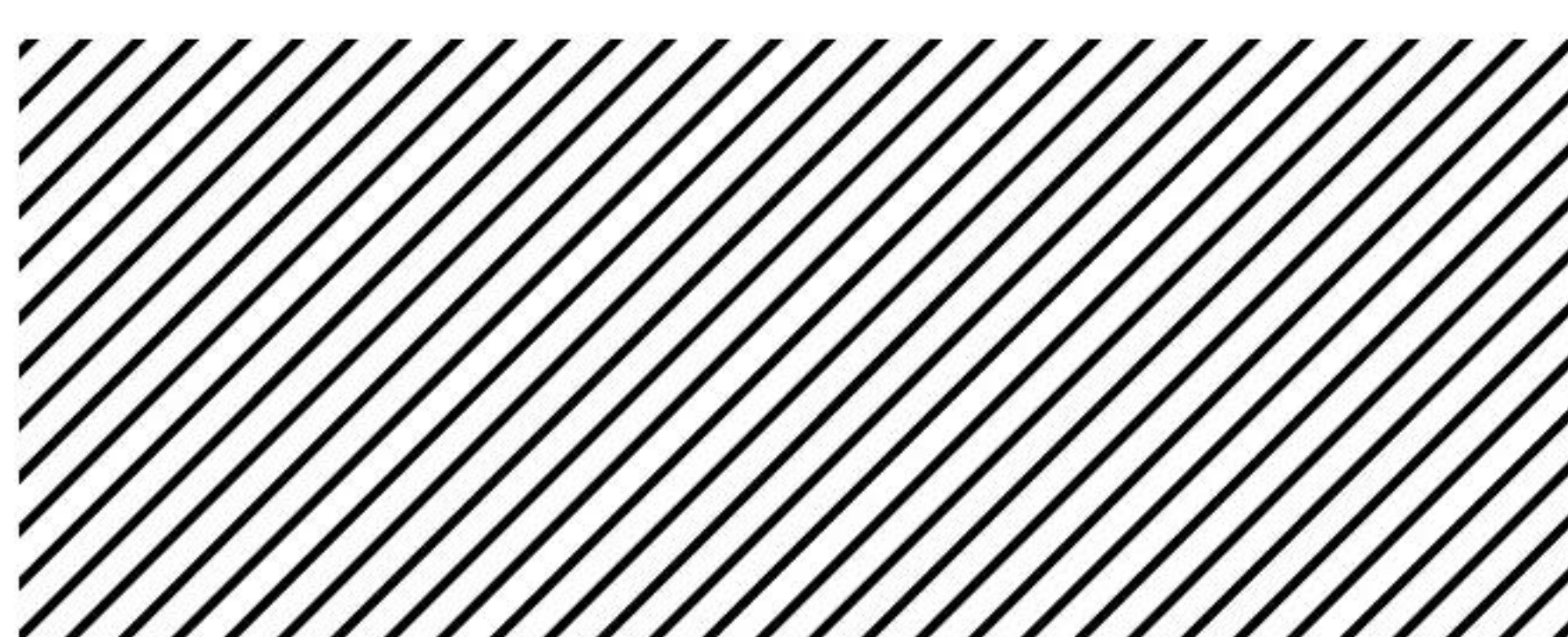


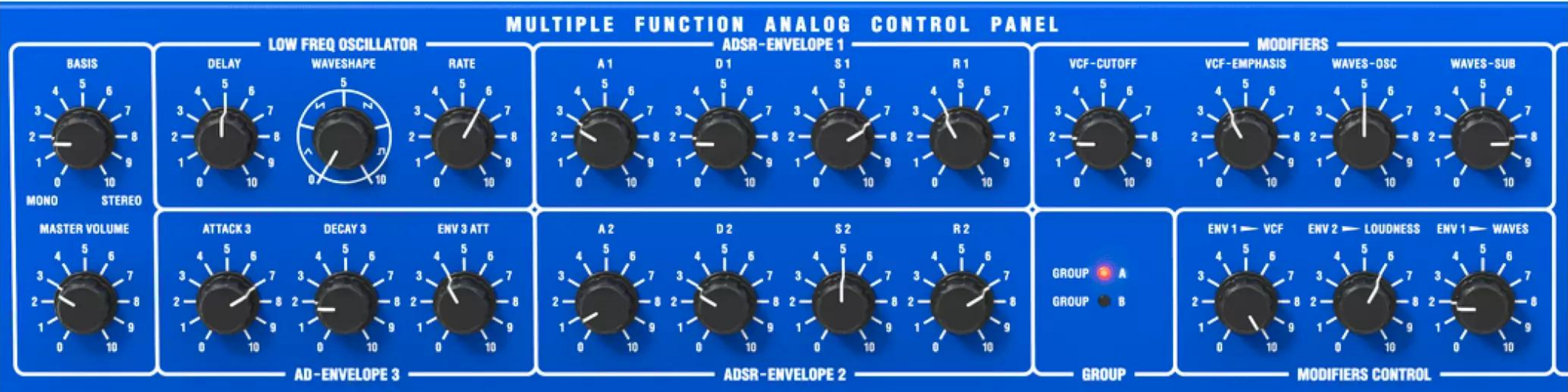
Got it all? Programming the digital part is certainly a challenge!

entire memory of the Wave and lose all previously created sounds. But the fact that the parameter SW relates to the second oscillator and the value 2 changes the envelope to wave modulation, 3 mutes the oscillator, and 6 instead activates the noise generator, requires either a lot of brain effort or a constant glance at the manual. Fortunately, in addition to the supplied printed quickstart manual, there's also a more detailed manual available for download.

New: Push encoder and OLED

Behringer has added a few small improvements to its Wave compared to the original: instead of using the buttons, you can also select and adjust parameters





With 22 knobs, you have direct access to filters, envelopes, and wavetables.

Analog low-pass filter

The filter also plays a significant role in the extraordinary sound. It is a 24dB low-pass filter with resonance, as also used in the Korg Polysix. Behringer has succeeded in creating a really good-sounding replica here, although the resonance seems to thin out the bass more at high values (at least from memory, I didn't have a real PPG Wave for direct comparison at hand). Together with the relatively fast ADSR envelope, not only beautiful pads and shimmering arpeggios are possible, but also punchy basses.

VCA envelope with small quirks

With the amplifier envelope, however, you can hear certain differences even without a direct comparison. It is set very linearly and shows a quite unusual interaction of decay, sustain, and release. Let's see if Behringer can tweak this a little more, especially since there have been corresponding optimizations via firmware for some Behringer synthesizers regarding envelopes.

Optional sound improvement

Speaking of optimization: Behringer has equipped the Wave with some improvements in the digital domain that can be optionally activated. The blending between the individual waves and their aliasing (i.e., the audible digital effects, especially at high notes) can be adjusted to sound somewhat smoother and thus more modern. The behavior of the LFO, which apparently was a bit unpredictable in the original due to limited processor power, can be stabilized in the new Wave.

Binaural layers or split sounds

The 8 voices of the Wave can be spread apart in the stereo panorama with the base control, so that the voices alternate left and right. This is especially interesting when you layer two identical or very similar sounds on top of each other. The Wave is

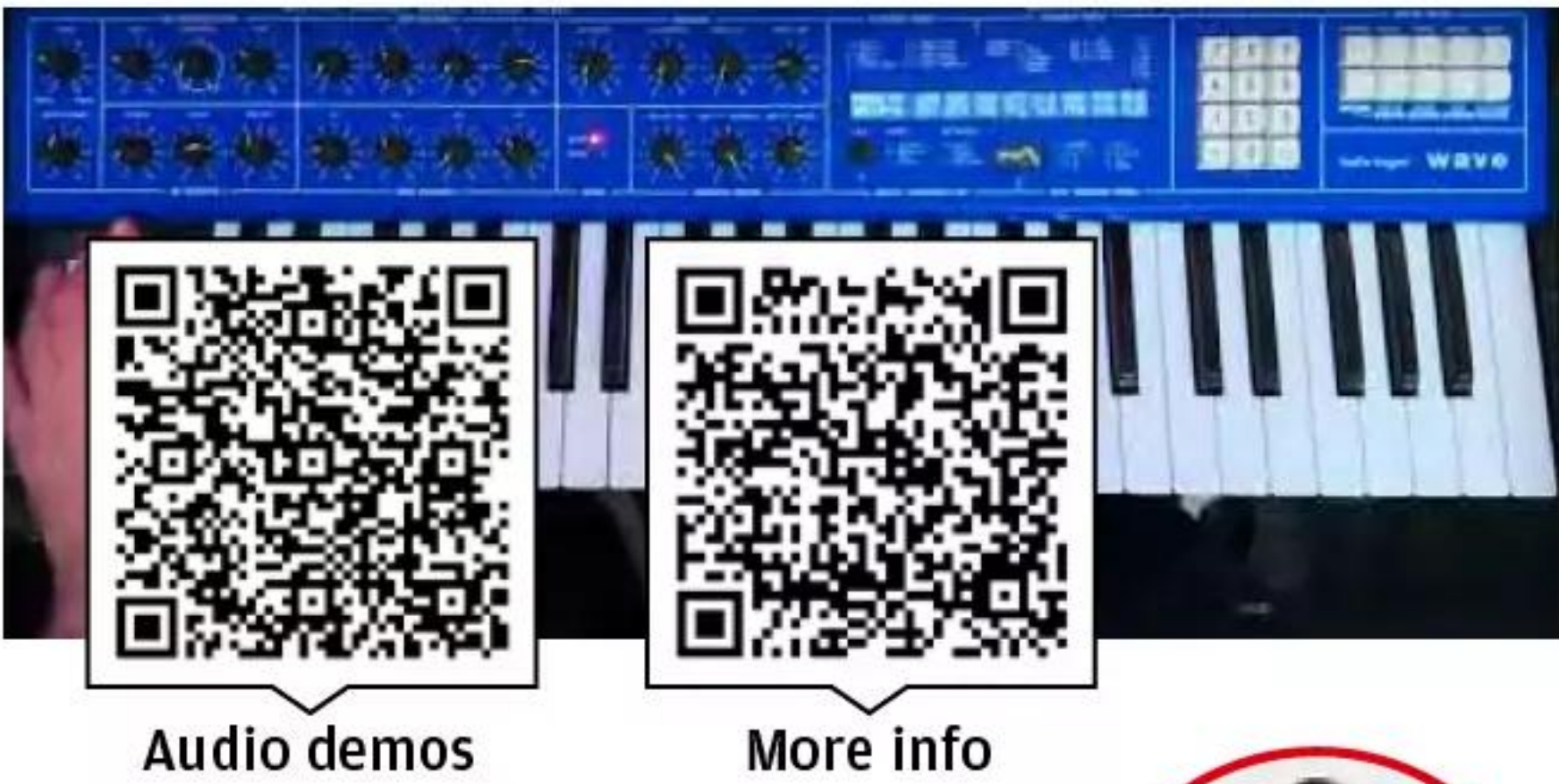
then only four-voice, but you have beautiful binaural stereo sounds that are not far from the UDO Super-6. Split sounds are also possible, with variable numbers of voices for each side. A monophonic bass on the left half of the keyboard, a polyphonic string pad on the right side with a variable split point is no problem for the Wave. Both sounds can be edited separately or together, but they also refer to the same wavetable. Layered unison sounds are also possible.

Polyphonic sequencer

Behringer did not retain the hard-to-use sequencer of the PPG Wave but instead installed its own version. A sequence consists of up to 64 steps and can be stored together with the sound preset. Input is simple: press record and enter the notes step by step via the keyboard. Since it is a polyphonic sequencer, you can also record several notes and chords per step. Unfortunately, velocity or controller movements are not recorded. With the keyboard, you can transpose a running sequence or play additional notes over it.

Arpeggiator, individual tuning

Alternatively to the sequencer, there is also an arpeggiator. It offers various running directions and octave ranges, but at first glance no exceptional functions. However, you can combine it excellently with a special feature of the Wave, because with the Wave you can tune each voice individually, also very intuitively via the keyboard. As a result, even a simple arpeggios can generate nice melodies that keep changing when holding chords.



VERDICT



Especially readers of an older age will certainly experience a déjà vu while listening through the presets, because Behringer has captured the sound of the Wave, immortalized in numerous hits of the 80s, very convincingly. But even apart from the nostalgia, the Wave is a very good-sounding synthesizer. Just classic waveforms combined with the analog filter achieve typical synthesizer sounds, which even a purely analog poly synth wouldn't do better – that alone would justify the 600 € street price. And when using the wavetables, there are very assertive and transparent sounds as well as lots of digital grime, which somehow always sound more musical and organic than just putting a bitcrusher on a classic synthesizer or plug-in.

The only downside is the operation. If you just want to step through presets and tweak them with the knobs, it is unproblematic. But if you want to dive deeper into the programming of the digital part, you have to turn from musician to hacker. Here Behringer missed the chance to adapt the operation to modern possibilities. But a better integration of the new OLED display can still potentially bring improvement, or an editor for the computer.

All in all, a great-sounding, flexible hybrid synthesizer for little money, which has already found a permanent place in my studio. 🍷



The individual outputs for the 8 voices are currently not really useful, but maybe a multimode will come?

Power Producer: Ableton Push

Break up monotonous sounds

Sound textures often sound static and predictable – but with granular synthesis, sounds can be broken up and transformed into dynamic, ever-changing soundscapes. You will learn how this works with the Granulator III and how to perform varied and lively textures live with Push in this workshop! by Maya C. Sternel

Project info



Material: Ableton Live 12 Suite, Ableton Push 3

Time Required: 30 minutes

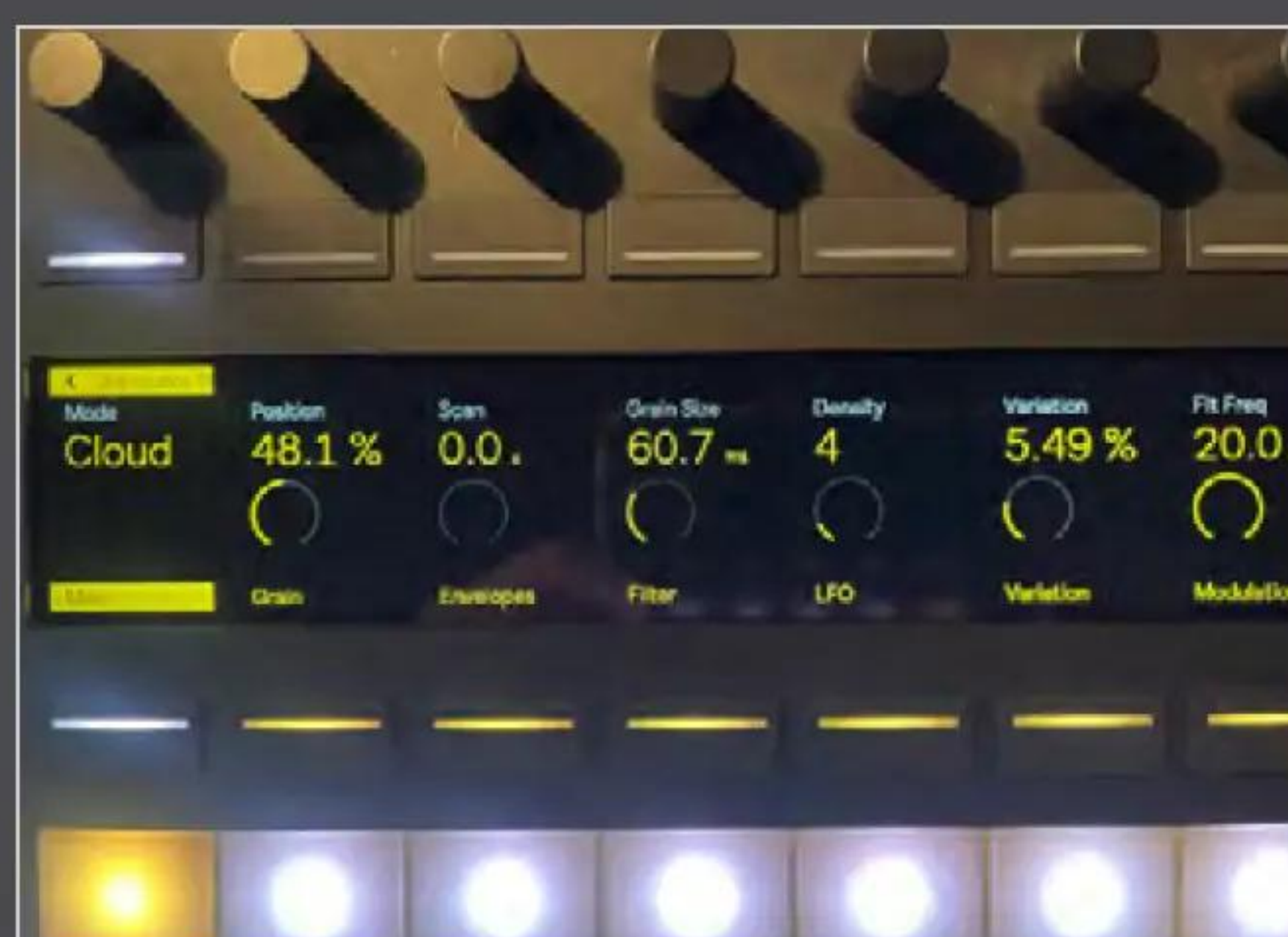
Content: Create variable and detailed sound textures with Granulator III, select suitable samples, address different sound fragments with individual Push pads, creatively use additional effects.

Difficulty: Advanced



1 Select sample

Load the Granulator III into a MIDI Track. Load an atmospheric sample into the device. Samples with a natural reverb or interesting overtones are particularly suitable. Go to the Main Menu of the Granulator in the Push display. Hold down a Push pad and vary the **Grain Size**, that is, the size of the fragment. ❖



2 Find fragments

Smaller grains produce more even textures, larger grains create rhythmic structures. Scroll with **Position** through the sample to define the part from which the fragment is taken. Keep holding the pad and move the rotary knob over **Variation** to 4-6%, so that random deviations from the grain position occur. ❖



3 Sample position

To make the sound more lively, go to the Granulator Modulation menu. Here you can assign the Granulator's internal LFO to various parameters. On the left, select the modulation target, and then use the rotary knobs to determine what modulates it. Select **Position** as the modulation target and set **Key>Pos** to a medium value. ❖



4 Vary sounds

Now a different position within the sample is selected with each pad strike, so each pad has a different sound. Since the Granulator III is MPE-capable, you can play very expressively. Go back to the Main Menu. Slowly turn the **Filter Frequency** up and down while holding down a pad. You can set the Filter Type in the Filter menu. ❖



5 Shape sound

To further vary the tone color of the texture, load a Phaser-Flanger effect onto the track and set **Feedback** to 21%, so that the sound is slightly modulated. Optionally, load the Spectral Time after it to further color the sound, and set **Dry/Wet** to 48%. To make the sound more spacious, load the Echo effect and set **Dry/Wet** 30%. ❖



6 Introduce motion

Add an Auto Pan to the track to bring motion into the sound. Set **Amount** 35% and a medium **Rate**, so that the sound slowly moves from one side to the other. Experiment with different effect settings. Resample interesting sound results, which you can then reuse as standalone samples! ❖

On Stage

by Carl-Philipp Schmeller

Mixxx – Free DJ software with new effects

DJs looking for free DJ software might enjoy the cross-platform solution Mixxx, for which version 2.5 was recently released. One of the innovations of the update is the simplified management of playlists with optimized search filtering. Integration of iTunes and Traktor libraries is supported. In addition to its four decks, the open source program also has various internal effects, to which a compressor and glitch effect have been added. If that's not enough, macOS users can also integrate AU effect plug-ins. The effects can then be used to create creative effect chains. For user-friendly operation, there is an individually programmable mapping system for various DJ controllers (e.g. Pioneer DJ DDJ-FLX4, Denon MC7000 or Traktor Kontrol S4 MK3). It is also possible to use turntables with timecode records for playback or scratching with Mixxx. Last but not least, up to 64 samples can be layered and combined with each other.

Mixxx 2.5 is now available to download free of charge for Windows, macOS and Linux.

mixxx.org



More info

Unlimited many AI songs generate - free of charge!

Riffusion is a new provider of AI-generated music that can be used free of charge and without limit. Compared to other providers, the audio quality is really very good. Under Prompt, you can briefly describe the genre and characteristics of the song to be created. You can also decide whether the song should be instrumental or with vocals. The results sound amazingly authentic. The appropriate lyrics can also be generated. If you are happy with the lyrics, but only want to edit one line of text, you can change this selectively.

It is also possible to upload your own samples, for example the idea of a melody, from which a complete sequence is then generated. Finished songs can currently be downloaded in m4a format. Individual stems can also be extracted (bass, drums, vocals and others). So far, Riffusion is still in the beta phase and free of charge, but various payment models will be announced in the future so that the generated music can also be licensed and used commercially.



More info

riffusion.com

Prolight + Sound - the most important facts in a nutshell

The Prolight + Sound trade fair is just around the corner. From April 8 - 11 in Frankfurt am Main, the range of products and services for audio technicians, DJs and producers will be expanded with exciting new formats to mark the 30th anniversary. From immersive audio solutions to AI-based sound design. For DJs and producers, the "MIXCON x BVD present DJ & Producer Conference" is likely to be an important hotspot for technology, networking and marketing. In the "Mixlab", sound engineers will find everything they need to know about mixing consoles for live sound and the studio. Another new feature is "MusicOneX". Here, well-known manufacturers from the studio and DJ scene as well as educational institutions will present themselves to educational and cultural institutions. Germany's best turntablists can put their skills to the test at the "DMC - German DJ Championships". Various event highlights will be organized in the Special Area. These include workshops, courses, hands-on experiences and presentations.

Pssst! Plus, as a Beatles fan, you get exclusive free tickets! And you don't have to do anything, you can pick up your ticket right here:

prolight-sound.com/freeticket



More info



Recharge your Zampler & Akai MPC

130+ expansions | 135+ GB samples | audio demos



www.zamplersounds.com

compatible with Zampler, MPC One, Live, Live 2, One, X, Studio, Renaissance, Force & Software

Thinking Outside the Box

The best alternatives to the studio display

It doesn't always have to be an Apple Monitor: We've put together four alternatives to the Studio Display, from all price points, and tell you which ones are particularly suited for use in your home office.

by **Stefan Molz**

The Coronavirus pandemic gave the IT market a strong boost. Monitor manufacturers have also noticed this: In Germany, sales of external computer monitors grew by a total of 4.5% in the first year of the pandemic in 2020.

Large-format displays, in particular, saw growth: Sales of monitors with a diagonal of 27 inches or more increased by 11.6% in 2020 - experts

expect consumers to opt for even larger models in the future.

The "Elephant in the Room" is undoubtedly the Studio Display. Apple's flagship monitor impresses with outstanding picture quality, an exemplary sound system and the usual optimization for the Mac. However, we have found four alternatives that will enhance your purchase decision.



Philips 40B1U6903CH

Philips claws at the price of the Studio Display. Does their huge curved monitor make sense in the home office?

No sooner had 4K established itself as a buzzword in the monitor market than many users were already looking further up, not least of all thanks to the Studio Display: Professionals are demanding 5K - and Philips can deliver. But take a closer look: While Apple offers a resolution of 5,120 x 2,880 pixels in a 16-to-9 format suitable for movie theaters, the Philips 40B1U6903CH/00 delivers “only” 5,120 x 2,160 pixels in a wide 21-to-9 aspect ratio, resulting in a pixel density of 140 ppi.

Like in a spaceship cockpit

Looking at the majestic 39.7 inch screen of the 40B1U6903 conveys a sublime feeling. Philips emphasizes this with the convexity of the curved display, which is quite moderate at 2,500R. Thanks to the IPS technology used, the color fastness is pleasingly high - Philips states it as 98 percent of the DCI-P3 color space. However, there is no mention of the Adobe RGB value, which is important in professional Prepress.

We were somewhat disappointed by the maximum luminance of just 300 candela per square meter - given the sales price, which is hovering in the realm of Studio Displays; we would have liked 400 nits or more. For comparison: The cheaper 45-inch model 45B1U6900C from the same company achieves a respectable 450 nits.

For office and creative applications, however, the refresh rate of 75 Hertz on the new Philips flagship is completely sufficient. The WUHD display achieves this value via Displayport or Thunderbolt connection. The HDMI 2.0 standard, which is offered twice, is only sufficient for 60 hertz - the difference is quite visible with a screen diagonal of over one meter. This raises the question of why Philips did not use the more powerful HDMI version 2.1 at least once.

Regardless, the offer of the Thunderbolt 4 connection is, of course, particularly attractive for Mac users. After all, it transmits data at up to 40 Gbit per second, including DisplayPort signals and 90 watts of power for a connected MacBook. This also benefits from a Gigabit LAN connection and nume-



» The Philips 40B1U6903 integrates a flip-up 5-MP webcam and microphone with noise suppression in its upper frame. The headset holder on the side looks a little bizarre. «

rous USB interfaces. The 40B1U6903, therefore, virtually replaces a sophisticated USB-C docking station.

Space for work and creativity

Maybe you're like me: When I see an ultrawide monitor, I associate it primarily with gaming. Ho-

wever, Philips doesn't appeal to this target group with its impressive 40-inch monitor - the 75 Hertz refresh rate won't be enough for many people. The technology giant advertises the 40B1U6903 as a “business monitor” - undoubtedly a classy one. And indeed: During our test phase, we usually had three applications on the screen at the same time - a web browser, a task manager and an email program. However, content creators, in particular, get their money's worth, as they benefit from an almost infinite display of video and audio tracks.

Sure, the purchase price is high. But consider that the 5K2K screen can save you the investment in a second screen, a Thunderbolt USB hub and a high-resolution webcam. **TR**

INTOXICATING

Opulent office workhorse by day, lush creative playground by night:

Philips' 40-incher provides enough space for documents, as well as audio and video tracks - but it comes at a price.

Samsung Smart Monitor M8

No. This is not a current iMac. Samsung has developed a monitor that we would, visually, expect from Apple.

There is constant competition between Apple and Samsung, from smartphones to tablets, headphones and displays. Interestingly, this Samsung product turned out to be the most appealing display in our test. From the design to the color, it is very similar to an iMac and fits perfectly into your Apple ecosystem.

Good design

Apple is strange when it comes to design and offers all-in-one devices such as iMacs, MacBooks and the like in different colors, but the manufacturer has a hard time with accessories such as the Studio Display. It is, therefore, nice to see that Samsung has taken heart and is offering the M8 in white and green. The first M8 generation, on the other hand, was much more colorful and was barely inferior to the iMac.

In terms of appearance, Samsung is very similar to the competition, but does two things fundamentally differently. The M8 is height-adjustable at no extra charge and can even be rotated into portrait format in the current version. Similarly, the camera is not integrated directly into the display, but sits above it. This has three advantages. You can adjust the angle of the camera. You can cover the camera with the cover supplied. And if you don't want the camera at all, you can simply detach it, as it is only magnetically attached.

One thing doesn't fit in with the Apple look: at the bottom right is a receiver for the remote control supplied, which gives quick access to Netflix, for example.

Wide range of functions

Before we get to the range of functions, we would like to say a few words about this display. Samsung relies on 4K resolution with a 60 Hertz refresh rate in a typical 16-to-9 format. The brightness is 400 nits. Due to the impressive 32-inch size, the pixel density of 137 ppi is around 80 pixels lower than the higher-resolution and smaller Studio Display. By the way: The M8 offers a display feature that Apple pays



» If the camera didn't extend beyond the display, you could almost be forgiven for mistaking the M8 for an iMac. «

handsomely for. The screen is matte so that you can see it better even in direct sunlight and it doesn't dazzle you.

In terms of scope, the Samsung display is a real monster. While you can connect other devices such as games consoles (for breaks) via HDMI cable, the operating system is Samsung's Tizen. This means that Samsung Dex is supported by (Samsung) smartphones and tablets; and a web browser for web services such as Windows 360 is also directly integrated. Von A wie Apple TV+ bis W wie Wow kannst du verschiedene vorinstallierte Streaming-Apps darauf nutzen und sogar Live-Fernsehen schauen. Für Gamer:innen dürfte die Integrati-

on des Xbox-Cloudgaming-Dienstes sowie Geforce Now interessant sein. Insgesamt bietet der M8 damit schon ohne Anschluss an einen Computer viele Features und kann mittels Smartthings sogar dein Smarthome steuern. For Apple users, however, the ability to wirelessly transfer content from the iPhone, iPad or Mac to the display via AirPlay should be particularly compelling.

All in all, the Samsung Smart Monitor M8 is a real all-rounder that not only supports you in your day-to-day work, but also allows you to quickly switch to the entertainment program. Incidentally, you can do both at the same time thanks to the integrated Multi-View Mode. **BO**

COMPREHENSIVE SERVICE PACKAGE

The Samsung Smart Monitor M8 is almost too much of a good thing. It supports AirPlay, HDMI, Internet TV, cloud gaming and more. It serves as a smart home hub and is, therefore, a real jack-of-all-trades.

LG

Dualup 28MQ780-B

Nothing new on the monitor market? Wrong: LG simply invents a new format with the Dualup.

When entering my office, some visitors have been looking twice recently. The reason: They don't see a monitor like this every day. LG has chosen a highly unusual, if not unique, format for the Dualup 28MQ780: The almost square 16-to-18 screen doubles the vertical height of standard displays.

Higher is better than wider

And this increases the field of view considerably, especially in office use: For example, when writing texts or displaying complex tables. Both everyday applications benefit immensely from the portrait format of the Dualup. Developers, on the other hand, can rummage through source codes without having to constantly scroll. And even mundane web surfing becomes an experience - after all, almost all websites are longer rather than wider. But creatives also benefit: Multiple Photoshop toolbars can be placed above or below the workspace. Audio professionals, on the other hand, can enjoy a view of far more tracks at the same time and display notations in their entirety.

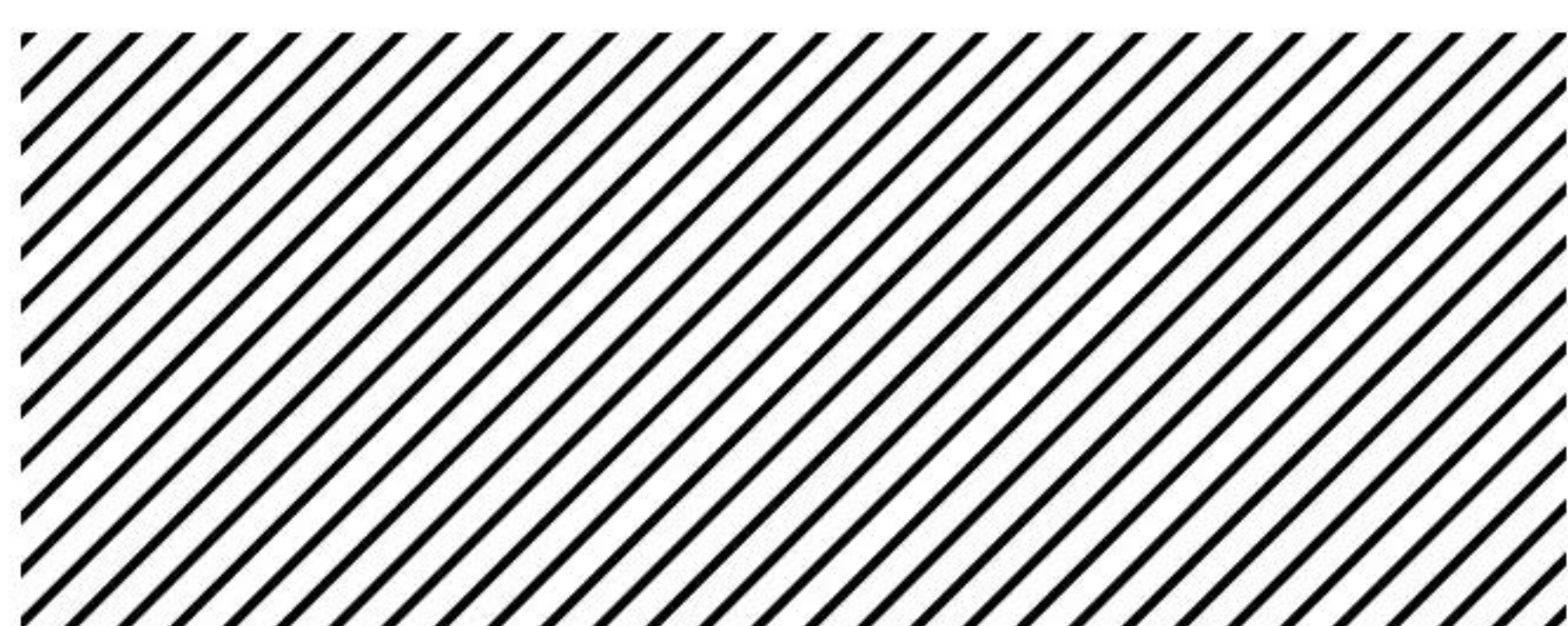
And, of course: more and more monitors in 16-to-9 or 16-to-10 format can also be turned upright into the pivot position - but this often feels a little wrong, as it is too narrow.

Speaking of which, the Dualup 28MQ780 can also be rotated. And it turns out to be a real talent for movement in other ways, too. The reason for this lies in its solid stand, which allows it to be adjusted, tilted, swiveled and rotated at particularly flexible angles. It also gives this LG monitor a remarkable degree of stability; otherwise, you could easily pay 100 Euro for a swivel arm of comparable quality.

Two monitors are better than one

But LG takes it even further: The Dualup is called Dualup because it can be used with two sources. In other words, you can feed in and display the image from two sources. This could be your Mac mini and your MacBook, for example. Of course, both signals can also come from the same computer and use either an HDMI, DisplayPort or USB-C connection.

Sounds crazy at first, but works surprisingly well in practice. In our opinion, it makes the most sense to use it as a second monitor on a computer:



» The 16-to-18 format of the LG Dualup displays text, tables, websites and source codes at a glance. Due to its design, it's less suitable for media consumption and games. «

The 28MQ780 then virtually transforms into two horizontally aligned 21.5-inch screens that share the mouse and keyboard - as you would expect from an external monitor. This allows you to use the top half for current applications, while the bottom half holds information that you want to keep an eye on

at all times - such as your appointments and tasks or a chat window. This solution should also be more energy-efficient than a real dual-monitor solution. As impressive as this option is, in practice we found ourselves preferring to use the LG Dualup as a single display - it simply plays out the advantages of its format more impressively this way.

PORTRAIT

The LG Dualup is, without a doubt, one of the most practical monitors for the (home) office. The question almost arises as to why landscape formats are more widespread at all.

It doesn't always have to be 4K

The Dualup 28MQ780 reveals itself with the unusual native resolution of 2,560 x 2,880 pixels, which is consequently reduced vertically to 1,440 pixels in "Picture by Picture" mode. Once again we see that 4K may be a buzzword, but there are also razor-sharp resolutions below that. What is more important is the pixel density - and this even surpasses a 32-inch UHD monitor. **TR**

Philips 329P1H

Complete package for the home office: The Philips 329P1H combines a 4K Display with a Webcam and a USB Hub.

8 million pixels on the surface area of two pizza boxes - with a 32-inch (almost 81 centimetres) diagonal display, a UHD resolution starts to make sense. After all, it offers space for displaying several Office documents side-by-side and for working with images and videos over a large area. And appropriately prepared videos can shine in all their full 4K glory.

Jack-of-all-Trades

With the 329P1H, Philips is preparing to deliver the complete package for the home office: In addition to a generously equipped USB hub, this monitor includes a wide-angle Full HD webcam with a sensor resolution of 2 megapixels and a decent microphone. This is waiting to be used as a pop-up model.

Do you need another camera if you already have a MacBook? For regular video conferences, a webcam that looks down from the upper display frame is indeed recommended, as the laptop lens tends to squint at your nostrils. The only drawback of the Philips solution: closing the camera box pushes the monitor down a little too easily on its stand, so you have to realign it afterwards. Appropriate for the category: It's not bad, but it will get annoying at some point.

The USB-C docking station mentioned above leaves little to be desired: A quick-charging function charges your MacBook, iPhone or iPad, and there is even an Ethernet socket for wired internet. Once again, however, Philips has made the ports disappear downwards into the frame: Although this is stylish, it makes connecting cables a test of patience - it's best to plug all the "cables" into their positions during assembly.

12 movable kilos

The Philips 329P1H looks absolutely professional on the desk. The workmanship is solid as usual, which is particularly true of the massive stand. This is surprisingly flexible when it comes to aligning the mo-



» The Philips 329P1H conjurs up 3,840 by 2,160 pixels on its minimally framed 32-inch display. This results in a pixel density of a sharp 140 ppi. The luminance is a maximum of 350 Candela per Square Meter (Nits). «

nitor; its turntable, can be rotated by 180 degrees and the height can be adjusted within a range of 18 centimeters. The VESA mount is slightly recessed into the housing, which is why attaching it to a swivel arm can be problematic.

The settings are made using four buttons on the front of the housing. This is where opinions differ: While small joysticks for configuring monitors are becoming more and more popular, many users prefer safe, traditional operation. On the positive side, Philips has done away with excessive duplication.

Office and graphics talent

Those who take the time to navigate through the menus will find optimized color settings for various usage scenarios in addition to the basic settings. These include Office and Reading modes, as well as a blue light filter and a light sensor that dynamically adjusts the luminance of the monitor to the ambient lighting. However, what makes sense on the iPhone can be irritating on a large screen format.

There is nothing to complain about when it comes to this display: The color reproduction is magnificent; its accuracy is also impressive for pixel pushers who are not necessarily dependent on absolute high-end values. This monitor fully covers the sRGB color space required for web graphics. It meets the Adobe RGB spectrum, which is widely used in professional color image processing and the printing industry, with a good 89%.

However, ambitious gamers should look elsewhere: The refresh rate of 60 Hertz might not be enough for them. **TR**

ALL IN, ALL ON!

The combination of a brilliant 32-inch display, good Full HD Webcam and chargeable USB-C Dock saves a lot of desk space. There are only deductions in the B grade.

Verdict

Sure, every monitor has to measure up to Apple’s Studio Display. But how many Mac users can actually afford a display with an optional nano-textured glass that costs 2,000 Euro? And those who are prepared to invest so much money because they want the best of the best (and because it says Apple on it) will do so - and thus almost fall out of the target group for this article.

You should still spend a little money on a tool that you will be looking at for a large part of your working day - perhaps it doesn’t have to be the latest offer from the electrical wholesaler in the industrial area. And between you and me: The prices shown in the table below are the manufacturer’s recommendations. If you use the well-known price comparison tools on the web, you will find some of the models presented here at drastically lower prices.

The same applies to all monitors: We can thoroughly recommend them to you. The Philips 40B1U6903 is a special experience that almost sur-



Second monitor enclosed: With its unusual format, the LG Dualup inspires you to rethink routines.

passes the Studio Display - and catches up in terms of price. On the other hand, the LG Dualup is a real recommendation for daily work in the home office due to its unusual format - we wouldn’t want to be without it. And the fact that Apple’s “favorite oppo-

nent” Samsung, of all people, has the most “apple-like” screen, at least visually, is a gentle irony. The Philips 329P1H (who invents these names?), on the other hand, is a solid workhorse that you can’t go wrong with. 🟦🟦

	LG Dualup 28MQ780	Philips 329P1H/00	Philips 40B1U6903	Samsung Smart Monitor M8	Apple Studio Display
Display Type	LCD	LCD	LCD	LCD	LCD
Diagonal	70.1 cm (27.6")	80 cm (31.5")	100.9 cm (39.7")	81 cm (32")	68.6 cm (27")
Native Resolution	2,560 × 2,880 (SDQHD)	3,840 × 2,160 (UHD)	5,120 × 2,160 (WUHD)	3,840 × 2,160 (UHD)	5,120 × 2,880 (UHD+)
Pixel Density	139 ppi	140 ppi	140 ppi	137 ppi	218 ppi
Aspect Ratio	16:18	16:9	21:9	16:9	16:9
Response Time	5 ms	4 ms	4 ms	4 ms	5 ms
Max. Brightness	300 cd/m²	350 cd/m²	300 cd/m²	400 cd/m²	600 cd/m²
Refresh Rate	60 Hertz	60 Hertz	75 Hertz (TBT4/DP)	60 Hertz	60 Hertz
Color Space	DCI-P3 (98 %), Adobe RGB (90 %)	DCI-P3 (91%), Adobe RGB (89 %), sRGB (128 %), NTSC (117 %)	DCI-P3 (98 %), sRGB (134 %), NTSC (103 %)	DCI-P3 (76 %), Adobe RGB (71 %), sRGB (99%)	DCI-P3 (100 %)
HDR	HDR 10	-	HDR 10	HDR 10+	-
Connections	2 × HDMI 2.0, Display-port 1.4, USB-C (DP Alt, 90 Watt PD), 3 × USB-A	2 × HDMI 2.0, Display-port 1.4, USB-C (90 Watt PD), 4 × USB-A, Ethernet	2 × HDMI 2.0, Display-port 1.4, Thunderbolt 4 (90 Watt PD), USB-C (45 Watt PD), 4 × USB-A, USB-B, Ethernet	Micro-HDMI, USB-C (65 Watt PD), USB-A, Bluetooth 4.2, WLAN 5	Thunderbolt 3 (96 Watt PD), 3 × USB-C
Loudspeaker	1 × 7 Watt	2 × 5 Watt	2 × 5 Watt	2 × 5 Watt	6 loudspeakers, 3D-Audio
Webcam	-	5 MP	5 MP	Full-HD	12 MP
Dimensions*	482 × 550 × 45 mm	714 × 422 × 62 mm	948 × 426 × 109 mm	713 × 419 × 22 mm	623 × 362 × 31 mm
Price (RRP)	699 Euro	729 Euro	1,849 Euro	699 Euro	From 1,749 Euro
	1.5	2.0	1.9	1.4	1.2

* without stand

Monthly music treasures

compiled
by Sascha Blach



Gutenberg: Various Darkness

Behind Gutenberg is the Japanese artist Shouji Sakurai, who transforms techno into avant-garde on „Various Darkness“. The original ingredients of techno, industrial, and electro, as well as metal, are often distorted and alienated to the point where something new emerges that is both chaotic and atmospheric. Far from common listening habits, the album of the man from Nagoya sounds claustrophobic and disturbing, exuding the aura of a dystopian world. Occasional melody fragments are quickly ironed out, human emotions swallowed by distortion and monotony. Together with MARI, an interesting vocal track was also created, which is no less disturbing than the instrumentals. Not for the faint of heart, but rather for those who like to fully enjoy the extremes of electronic music.

Genre: Industrial | Label: Ant-Zen



Lawrence Hart: Come In Out Of The Rain

Lawrence Hart is the grandson of the famous computer pioneer Geoff Tootill. Does that give him a certain affinity for technology? What is certain is that on his debut album „Come In Out Of The Rain“, technology plays a major role. However, he emphasizes that it is only the framework for emotions, as the Brit himself tried to profitably combine technology and feeling. He does this through clubby tracks that combine elements of Dance, Electro, and Pop, sounding quite contemporary. The vocals mostly come through samples, musically, the sound appears both groovy and playful. And at least in terms of music, Lawrence is quite a master of his craft, as he was already taught classical music at an early age and later studied Jazz trumpet before discovering clubbing for himself.

Genre: Electro | Label: Double Six/Domino



Röyksopp: True Electric

Hardly have Röyksopp surprised us with their ambient album „Nebulous Nights“, Svein Berge and Torbjørn Bruntland follow up with „True Electric“, another work featuring songs from their entire career. The definition of what „True Electric“ actually is, is not so easy. Live album? Best-of work? Remix compilation? In terms of content, it is the current live set, but it is heard here in studio versions, and the audience is conspicuously absent. However, it seems that tweaks have been made and the versions reworked compared to the original versions. The focus is on clubby tracks and songs with vocals, with „R“ being an exclusive track to hear as well. Even if one wonders why it didn't make for a proper live album, the 19 tracks, released as a triple LP and double CD, are definitely a well-flowing compilation. One with a great sound that underlines that Röyksopp are one of the best electro acts on the planet.

Genre: Electro | Label: Embassy One/Dog Triumph



Uner: Conticinium

Transformation, reflection, and rebirth – these are the themes the Spanish artist Uner explores on his fifth album „Conticinium“. After focusing more on his project NIN3S for the past five years, which combines electro and classical music, he now shifts focus back to Uner and delivers a complex album at the intersection of various electronic genres. Whether Techno, Breakbeat, bass, IDM, or Neo-Trance, many elements come together here, forming a mix that is both danceable and makes sense over headphones. As one of the key figures in the melodic house and techno scene, Uner shows that even club sounds can be complex and sophisticated. Conticinium is a densely produced album, full of attention to detail, recommended for those who are into immersive electronic worlds.

Genre: Techno | Label: Veil Theory



Joni Void: Every Life Is A Light

With „Every Life Is A Light“, the Montreal-based producer and sound collagist Joni Void returns with his most accessible album yet. The record marks a stylistic progression towards more structured songs with a touch of Pop and warmth in the production, without giving up Void's characteristic sample art and experimental approach. The frenetic mechanics of earlier works give way this time to gentler Downtempo grooves, Trip-Hop elements, and an atmospheric lightness. Hypnotic soundscapes meet cinematic elements and playful experimentation, and despite the introspective underlying mood, also marked by personal loss and grief, the album conveys a hopeful, almost floating soundscape. Artists like Sook-Yin Lee, Haco, and Ytamo, as well as rapper Pink Navel, were involved, which makes „Every Life Is A Light“ an interesting auditory exploration.

Genre: Electronica | Label: Constellation



Richard Russell: Everything Is Recorded

Richard Russell is not only the label boss of XL Recordings, where artists like Adele, Thom Yorke, or Radiohead release, but also a sought-after producer who has worked for Bobby Womack, Damon Albarn, Gil Scott-Heron, or Ibeyi. In London, he runs The Copper House studio, which was also the creative meeting point for „Everything Is Recorded“. It is a collaborative work that brought together artists such as Sampha, Florence Welch, Laura Groves, Ricky Washington, Noah Cyrus, Bill Callahan, Roses Gabor, Jah Wobble, or Yazz Ahmed under the producer's direction. The voices change as often as the genres - one hears a colorful mix of singer-songwriter, Folk, Electro, Jazz, Funk, and Soul - but what all the songs have in common is the engagement with death. Accordingly, all songs are thoughtful, and some of them are real gems!

Genre: Electro, Jazz, Funk, Folk | Label: XL Recordings



Steffi x Virginia: Patterns Of Vibration

The name Steffi x Virginia stands for house music, and that's exactly what the duo Steffie Doms and Virginia Högl deliver on their current album „Patterns Of Vibration“. The eight tracks provide clubby sounds with poppy female vocals. Created within three months at the Candy Mountain Studio in the Portuguese province, the album is made to be played in clubs, as the beats relentlessly drive the tracks forward. The somewhat old-school techno synth arrangements also ensure continuous danceability thanks to a certain repetitiveness. Virginia's vocals, on the other hand, mark melodic counterpoints and create a certain appeal in the sound. Open-minded house fans should take a listen!

Genre: House | Label: Dekmantel



Wellen.Brecher: Liebeserklärung

„I love listening to techno, because techno is all I have,“ says the opening track, „Türöffner“ in German. This sets the tone. In the course of the album, the Berliners sing a hymn to 12-voice polyphonic synthesizers, advocate for more inclusion in club culture, and promote a different buying behavior for more sustainability on the planet. They also call for smashing synths, turntables, and samplers and, in the cover version of „Techno DJ“, call for the DJ to be killed. A punk attitude goes hand in hand with a dadaistic gesture and a certain closeness to the Neue Deutsche Welle. Earnest critical messages, ironic and funny nonsense go hand in hand. Musically, however, Wellen.Brecher are technoid like something out of a manual. Inspired by Detroit Techno, 90s sounds, EBM, Acid, and Trance, they deliver the stuff that drenched nights on the dance floor are made of.

Genre: Techno | Label: Killekill

Your event planner for 2025



08.04.2025 - 11.04.2025

Prolight + Sound 2025

Frankfurt, DE



23.07.2025 - 23.07.2025

Amazon Prime Day

Worldwide



08.09.2025 - 10.09.2025

AES Europe

London, UK



12.09.2025 - 15.09.2025

IBC2025

Amsterdam, NL



26.09.2025 - 28.09.2025

Guitar Summit

Mannheim, DE



11.04.2025 - 13.04.2025

Synthfest France

Orvault, FR



08.05.2025 - 10.05.2025

Superbooth 2025

Berlin, DE



14.05.2025 - 18.05.2025

Berlin Dance Music Event

Berlin, DE



18.05.2025 - 18.05.2025

High End 2025

Munich, DE



04.10.2025 - 04.10.2025

SynthFest UK

Sheffield, UK



14.10.2025 - 16.10.2025

LEaTcon 25

Studioszene Hamburg Messe, DE



22.10.2025 - 26.10.2025

Amsterdam Dance Event

Amsterdam, NL

Publisher (V.i.S.d.P.):
Kassian Alexander Goukassian (kg@falkemedia.de)

Chief editor: Marco Scherer (m.scherer@falkemedia.de)

Managing editor: Mario Schumacher (ms@beat.de)

Editors:
Jan Wilking, Carl-Philipp Schmeller, Sascha Blach,
Tobias Fischer

Editorial staff:
Daniel Bock, Laura Emiliano, Stefan Hofmann, Matthew
Mann, Ruben Mantel, Paul Marx, Dr. Chelsea Bruno,
Julian Schmauch, Frank Schreiber, Maya C. Sternal, Vera
Schumacher, Christoph Strauß, Nina Falk, Philipp Matthes,
Tom Nio, Maveric

Editorial enquiries/Reader letters: redaktion@beat.de

Cover design & layout: Ricarda Becker, naujoks-design.de

Publisher:
Falkemedia GmbH & Co. KG
Pahlblöken 15-17
D-24232 Schönkirchen
Tel. +49 (431) 200 766-0 info@falkemedia.de
Fax +49 (431) 200 766-50 www.falkemedia.de
ISSN 1860-9988
HRA 8785 Amtsgericht Kiel
PhG: Falkemedia Lifestyle GmbH (HRB 12311 AG Kiel)
Managing Director: Kassian Alexander Goukassian

Editorial office:
See publisher's address • Tel. +49 (431) 200 766-766

Data protection officer: Jürgen Koch
see Publishing House Address •
Mail: datenschutzanfrage@falkemedia.de

Subscription Support:
falkemedia GmbH & Co. KG
Pahlblöken 15-17
24232 Schönkirchen
Germany
Phone: +49 (431) 200 766-0
info@falkemedia.de

Media Consulting:
Dagmar Pawlowsky (d.pawlowsky@falkemedia.de)
Phone: +49 (0151) 22 35 58 43

Advertising Rates see Media Data 2024 under:
www.beat.de/mediadaten

Production and Print Management:
impress GmbH, Monforts Quartier 32
41238 Mönchengladbach

Sales Management:
Hans Wies,
DMV DER MEDIENVERTRIEB GMBH & CO. KG
e-mail: hans.wies@verlagsunion.de

Distribution:
DMV DER MEDIENVERTRIEB GMBH & CO. KG
Meßberg 1 • 20086 Hamburg, Germany
Phone: +49 (40) 3019 1800

Purchase Possibilities:
Magazine Trade, Specialized Trade, Subscription

Unit Price	Euro 6.99
Annual Subscription:	Euro 89.80
Foreign countries	per issue plus 0.90 €.
The prices include the legal value added tax and delivery.	

Manuscript Submission: Manuscripts of any kind are gladly accepted. They must be free of third party rights. By sending in the manuscript, the author agrees to the printing of the manuscript on data carriers of the company Falkemedia. Sending in the manuscript does not guarantee publication. Fees according to agreement or our AGB. The publisher does not assume any liability for unsolicited manuscripts.

Copyright: All contributions published here are protected by copyright. Reproductions of any kind are only allowed with the permission of the publisher.

Publications: All publications in this journal are made without consideration of possible patent protection. Trade names are used without guarantee of free use.

Exclusion of Liability: No liability is assumed for errors in text, circuit diagrams, layout sketches, etc. that lead to non-functioning or possible damage of components. Falkemedia also publishes the following publications Mac Life, DigitalPHOTO, BÜCHERMagazin, So is(s)t Italien, LandGenuss, sweet paul, KIELerLEBEN and many more.

© Copyright 2025 by falkemedia



ISSN 1866-3737

Feature: Sample Libs & Orchestras

Imagine being the conductor of an entire orchestra, the symphony of your dreams is in your hands. What if you could unleash this power not just in a concert hall, but right at your desk? Welcome to the fascinating world of sample and orchestral libraries, where the boundaries between digital production and acoustic reality are blurred. This article is your key to unlocking these worlds of sound that let you create everything from epic movie scores to much more soulful tracks. The key to more soul in your songs!

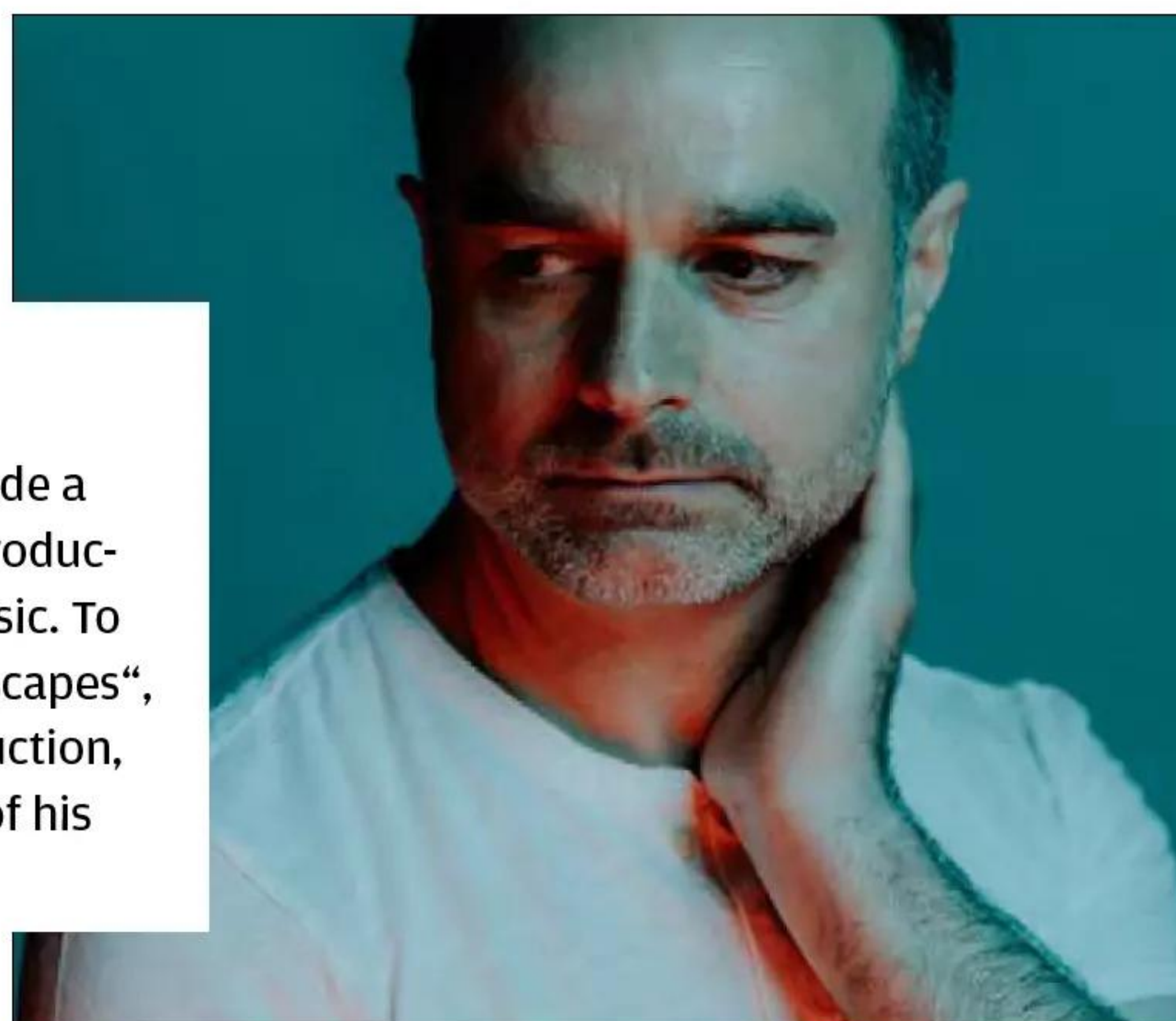


Test: Korg multi/poly

With the multi/poly analog modeling synthesizer, Korg wants to redefine “virtual analog” and builds on a combination of big sounds and experimental features from the modular world. The principle corresponds to a polyphonic modular system in an easily accessible format. An almost limitless playground for synth fans and sound designers, because you can create hybrids from East Coast, West Coast and wavetable oscillators and a wide selection of newly modeled filters. And on top of that, KAOSS Physics, Motion Sequencing 2.0 and extensive modulation options are also available.

Interview: Thomas Lemmer

German composer Thomas Lemmer has made a name for himself in recent years with the production of Electro, Ambient and meditation music. To mark the release of his new album „Dreamscapes“, in the next issue we take a look at the production, the Dolby Atmos mix and the construction of his new studio.



Test: Moog Muse

The predominantly analog Moog Muse is not only characterized by eight voices, but also has features that predestine it as an instrument for the stage. A spacious, structured panel and a variety of controls make it easy to create sounds as well as tweak them during a performance. Assignable controllers, direct access to layers, splits and chord triggers as well as versatile sequencer and arpeggiator features play into the hands of the live keyboardist in the truest sense of the word.

Advertiser Directory 05 | 2025

ADAM Audio	035		073	Sound Service	017,
Applied Acoustics	084	Klemm	005, 024		020, 023
Audiowerk.....	063	Hyperactive	034	Steinigke	083
Bitwig	021	LEWITT	019	TEAC Europe	002, 025
falkemedia.....	056 - 057,	Sonic Sales	022	United Plugins	053

TRM-222 IT'S YOUR TURN!

Analog rotary mixer with 3-band master frequency isolator

- VU meter for each channel
- Dipswitches for individual adjustment of the EQ curve
- Booth output with 2-band EQ and volume control
- Crossfader with adjustable crossfade characteristic
- Adjustable send-return effect path
- Adjustable record out



NEW

MULTIPHONICS CV-3

MODULAR SYNTH & FX



MODULAR RACK FOR CREATING SYNTHS AND EFFECTS

New in Multiphonics CV-3

- Polyphony
- MPE compatibility
- Physical modeling oscillators
- 3-operator FM oscillator
- Comb and tube filters
- 2-channel oscilloscope
- Envelope generators
- 100 Synth and Effects patches



MULTIPHONICS CV-3

WINDOWS · MAC OS X · 64-BIT
VST2 · VST3 · AU · AAX NATIVE · STANDALONE

www.applied-acoustics.com

A|A|S

Applied Acoustics Systems

